

COUNTRY
GUIDE
THE FARM MAGAZINE

935
Measure for Management

Nova Scotia Apple Boom

Tithing Their Talents

UNIVERSITY OF ALBERTA

DEC 20 1965

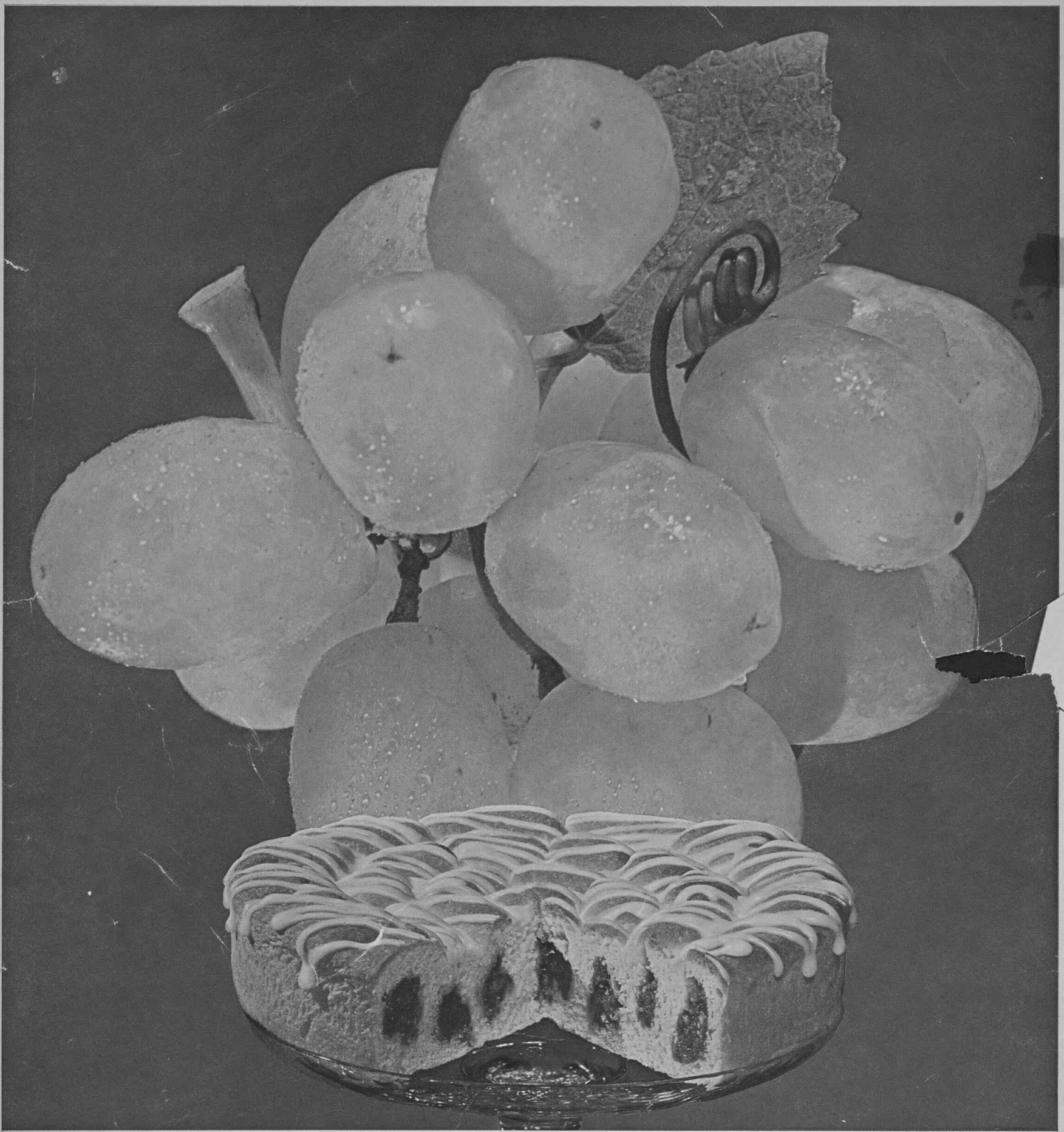
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RAISIN WHIRL COFFEE CAKE

4-4½ cups Robin Hood All Purpose Flour (Regular or Instant Blending) ¾ cup warm milk
 ½ cup warm water ½ cup sugar
 2 pkg. active dry yeast 2 tsp. salt
 ½ cup shortening
 2 eggs

Prepare Raisin Filling as dough rises. **Punch down** dough; divide in half. Roll out one portion into rectangle 6" x 16". Cut lengthwise in half. **Spoon** ¼ Raisin Filling along centre of each strip. Seal long edges together on both strips so that filling is surrounded by dough. Place one strip around outside edge in greased 9" layer pan so that two ends meet. Keep seal on bottom. Continue with second strip. The end of the second strip should be in centre of pan. Adjust coils so that space between is the same all around. Snip with scissors, every 2 inches around entire whirl. Brush with melted butter. Make second whirl in another 9" pan with remaining dough and filling. Cover and let rise until double in bulk (45-60 minutes). **Bake** at 350°F. for about 30-35 minutes. Cool and frost with Vanilla Icing. **Yield:** 2 coffee cakes.

RAISIN FILLING—2 cups raisins • 1 cup walnuts • ½ cup sugar • ¼ cup water • 2 tsp. lemon juice
 Put raisins and walnuts through food grinder. Add other ingredients and mix well.

Measure flour (without sifting) onto square of waxed paper. **Soak** yeast in warm (not hot) water for 5 minutes. **Combine** warm milk, sugar and salt in large bowl. Stir to dissolve. Add 1 cup flour, shortening, eggs and softened yeast mixture. Beat with rotary beater until smooth. Add remaining flour, mixing with spoon until dough leaves sides of bowl. Turn out on lightly floured board. **Knead** dough until smooth, elastic and no longer sticky (5-10 minutes). Place in lightly greased bowl. Grease top and cover with waxed paper. **Let rise** in warm place (75-80°F.) until doubled (1-1½ hours)



COUNTRY GUIDE

THE FARM MAGAZINE

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DECEMBER 1965

Christmas is for giving, even for people like McGregor, the hero of our Christmas story. McGregor prided himself on his thrift, his freedom and his scorn of the Christmas money-changers. Christmas, he'd decided, was only a commercial, candy-coated, beribboned trap. The carols, the celebrating, the sentiment of Christmas weren't for him.

But that was before two small boys knocked at his door, looking for holly "for their ma," they said. Their richly accented voices so stirred McGregor that, a few minutes later, he found himself trimming his own holly trees and wrestling with a beribboned wreath for a clanswoman and her children. If you want to read more about miracles, try "The Reforming of McGregor." It begins on page 31.

Another change of pace item in this Christmas issue is Peter Lewington's photo story of the Canadian Sheep Dog trials held last fall. While the trained dogs had a busy time that day, it seems that Peter too was demonstrating an impressive stamina and skill. A letter from him told us, "My interest in sheep dog trials and good working dogs goes back quite a few years. It was a pleasure to be asked to do the commentary at these trials."

He not only did the commentary but he took the pictures and wrote the story that appears on page 16 so our readers could share his enjoyment of the event.

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About Our Cover

This winter scene could have been found in just about any farm community in the country. It's our Christmas card to you, our readers. —Malak photo.

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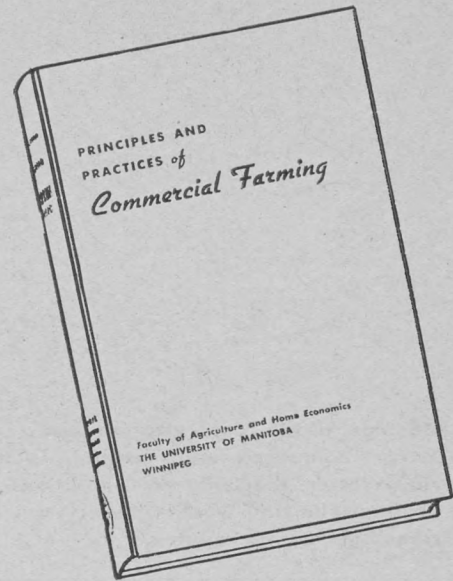
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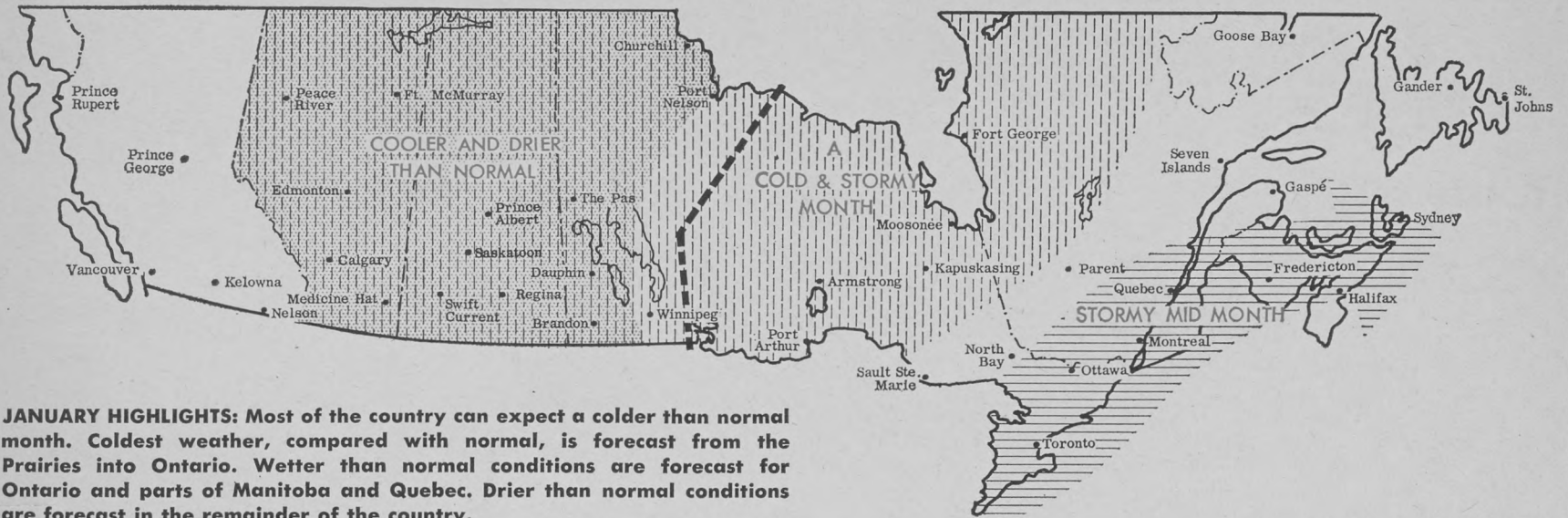
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JANUARY 1966

(Allow a day or two either way in using this forecast. It should be 75 per cent right for your area, but not necessarily for your farm.—Ed.)

Alberta

- 1st week 1-8:** Snowy, windy around 4th, 5th; more storminess expected around 8th. Cold at start of month, then more seasonable. Mildest in south between 5th-7th.
- 2nd week 9-15:** This will be one of the wettest periods especially from Calgary south. A couple of storms are forecast. Colder air will settle in during week end.
- 3rd week 16-22:** Fair, cold weather will prevail, with night lows plunging to -15° to -25° on several mornings even in south. No important precipitation.
- 4th week 23-29:** Cold air moving south at beginning of week will cause some scattered snow. Cold will linger through 26th. Scattered snow forecast around 28th, 29th.
- 5th week 30-31:** A gradual warming is forecast.

Ontario

- 1st week 1-8:** Scattered light snow is forecast around 1st, with main storminess between 4th-7th. Generally cold, especially 1st, 2nd and between 5th-7th.
- 2nd week 9-15:** Snow is forecast on the 10th and intermittently from the 12th-14th. Cold air is expected to follow on the 15th.
- 3rd week 16-22:** No general snow, although some light falls are expected around the 17th and in the south near the 20th. Coldest from 19th-21st.
- 4th week 23-29:** Warming briefly at beginning of week before snow sets up on 25th. Cold air will follow, lingering through the end of the week.
- 5th week 30-31:** Warming, no precipitation forecast.

Saskatchewan

- 1st week 1-8:** Fair but cold weather will prevail during first few days. Snowy weather will develop around 5th, and more snow is forecast at end of week.
- 2nd week 9-15:** Cold dry air will provide a brief break in snowy weather around 10th. Expect more snow between 12th-14th, followed by colder weather.
- 3rd week 16-22:** Continuing cold through to 21st. Sunny weather will prevail on most days, although some light snow will develop near the 22nd.
- 4th week 23-29:** Arctic air will take hold at beginning of week and last through 26th. Intermittent light snow is forecast between 27th-29th.
- 5th week 30-31:** Generally fair, with rising temperatures.

Quebec

- 1st week 1-8:** Several weather systems will scatter snow across the province. Temperatures will average below normal; coldest on 1st, 2nd, and 5th.
- 2nd week 9-15:** Windy, snowy conditions will prevail between 10th-14th. Skies will clear toward the end of the week and daytime temperatures will rise.
- 3rd week 16-22:** No extreme cold is forecast. Some milder days are expected early in the week. Snow will be common again from the 18th through the 21st.
- 4th week 23-29:** Fair and relatively mild early in week. Storminess expected around 26th will be followed by colder temperatures near the 27th.
- 5th week 30-31:** Unsettled, with scattered snow. Cold.

Manitoba

- 1st week 1-8:** No important precipitation is expected during the first 5 days. Storminess setting up around the 6th will continue intermittently through end of week.
- 2nd week 9-15:** Cold near 10th and 15th. Storms will develop between 12th-15th, bringing general snows. Snow could be heavy in some areas.
- 3rd week 16-22:** Colder than normal; coldest between 19th-21st. Some scattered snow is forecast around the 18th, with more general precipitation at end of week.
- 4th week 23-29:** Snow will continue on 23rd, 24th, then clear as more cold air settles in between 25th-27th. Light snow is likely again around 28th.
- 5th week 30-31:** No precipitation, rising temperatures.

Atlantic Provinces

- 1st week 1-8:** Scattered light moisture on 1st will be followed by colder air lasting through 2nd-5th. Main storms will develop during last 3 days.
- 2nd week 9-15:** Widespread snow on 11th, stormy on 14th and 15th. Temperatures will rise to relatively mild levels early in week.
- 3rd week 16-22:** Daytime temperatures in the 40s are expected on the 16th, 17th but the mild weather will end with storms developing between the 18th-21st.
- 4th week 23-29:** Seasonable temperatures will prevail through the first half of week and no important precipitation is likely. Snowy, colder around 27th.
- 5th week 30-31:** Continuing cold, unsettled.

Key to Abbreviations: T, temperature; P, precipitation; CL, cooler; WM, warmer; TH, threatening; SH, showers; R-S, rain or snow.

there's a lot more to a '66 GMC pickup than meets the eye



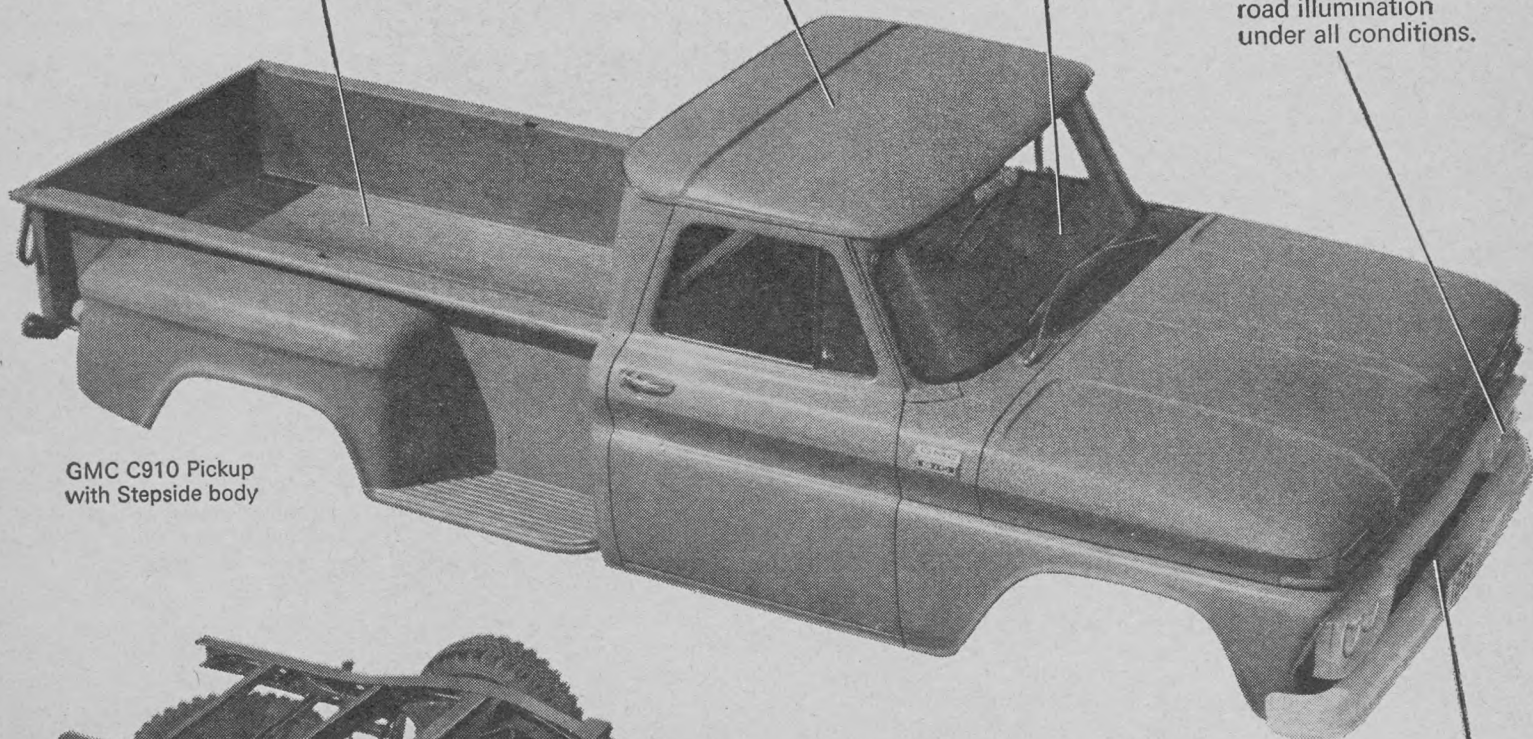
GMC C910 Pickup
with Wideside body

Chemically-preserved wood deck can't rust or "drum;" steel skid-strips ease loading and unloading; tailgate is grain-tight.

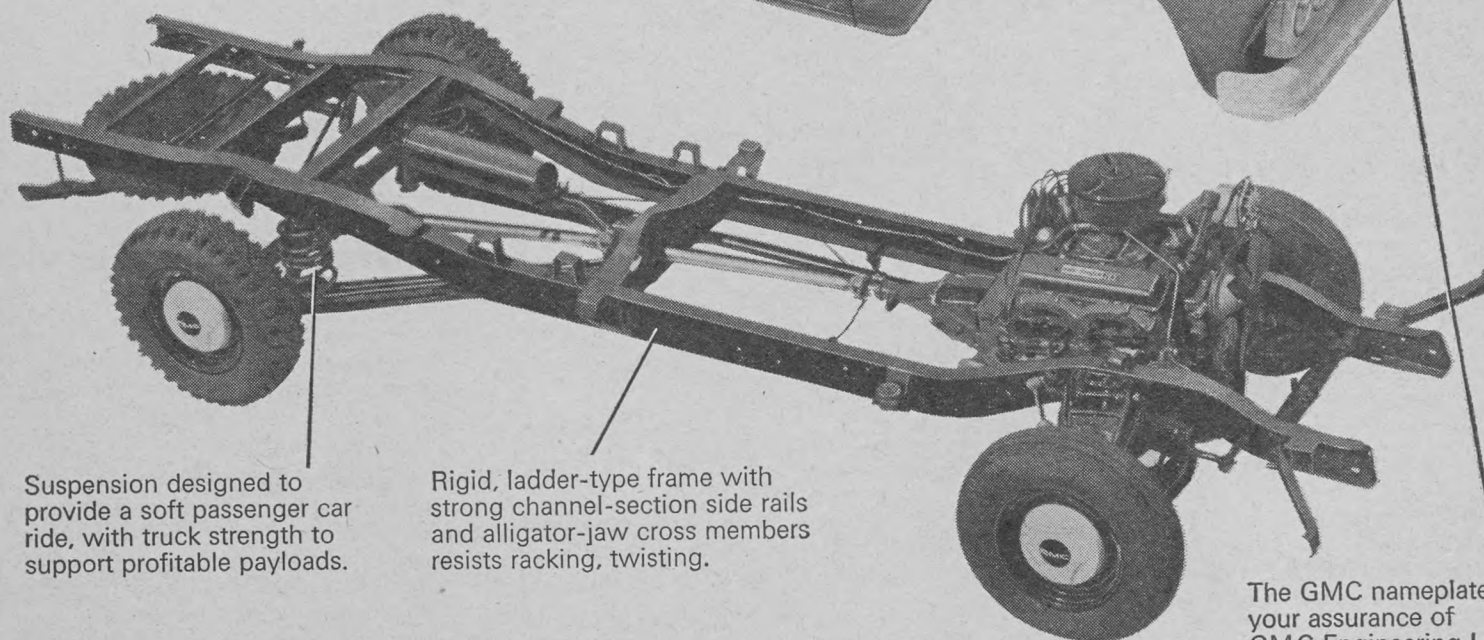
Double-steel roof with heavy, sandwiched insulation, protects cab interior from heat, cold, cuts down noise.

Printed circuits for instrument panel eliminates confused tangle of wires, makes repair and circuit tracing easy.

Four headlights for maximum road illumination under all conditions.



GMC C910 Pickup
with Stepside body



Suspension designed to provide a soft passenger car ride, with truck strength to support profitable payloads.

Rigid, ladder-type frame with strong channel-section side rails and alligator-jaw cross members resists racking, twisting.

The GMC nameplate, your assurance of GMC Engineering Leadership.

GMC Pickups are good looking. Comfortable too . . . all year 'round . . . with heavy insulation and double-steel walls and roof which keep heat outside in summer, inside in winter. GMCs combine sedan comfort with truck ruggedness. That's important for farm use. Trips to town become a pleasure. The new 250 cu. in. 155-horsepower standard six makes load carrying easy. The chemically-treated wood deck can't rust,

and has inlaid steel strips for easy loading and unloading. The tailgate is grain- and sand-tight, with easy-action latches. For extra performance, select the 292 cu. in. six 170 hp engine or one of two V8s at 175 or 220 horsepower. Automatic transmissions are available on most models too. GMC Pickups come in half, three-quarter, and one ton sizes. **Get GMC Engineering Leadership working on your farm in '66.**



A GENERAL MOTORS VALUE

Editorials

The Task Ahead

AFTER ITS failure to make gains in last month's election, the government faces the urgent task of developing a program and an image that will win the confidence of the people across this country and particularly those in farm areas. That the Liberal Government was given a stinging rebuke cannot be questioned. The party not only failed to increase its standing in the House, it found itself virtually rejected outside of industrial Ontario and of Quebec. In the Prairies it elected only one member. In the Maritimes it did little better. In British Columbia too it was left in a minority position.

Two points stand out in the aftermath of the election. First, the Liberals have failed to convince a majority of Canadians that their program is deserving of full support. Second, the Liberal program is preferred by more Canadians than any program being offered by any other party, and it has the support of people in the most populous areas of the country.

In his appeal to the people, Mr. Pearson talked of the need for a strong government

which could lead the way to a strong Canadianism. The refusal of the people to elect more Liberals cannot be construed as a vote against a strong Canadianism. In fact, the very interest of the people in the campaign, despite its lack of clear-cut issues, and during a time of continuing prosperity, indicates the great concern of Canadians for their country.

We believe the election result was, in fact, a protest vote against the government's failure to provide strong leadership. This failure was particularly marked in rural areas where the government suffered its greatest disappointment. Agriculture Minister Harry Hays himself went down to defeat.

The Liberal Government has provided some sound agricultural legislation. It extended farm credit, continued to sign trade agreements with various countries, saw the International Wheat Agreement extended for another year, was moving hesitantly toward the establishment of a national dairy policy, and signed a new "ARDA" agreement with the provinces.

It is moving ahead with plans for its war on poverty.

But in the eyes of farmers, the voice of agriculture was badly split in the cabinet. Three ministers, Hon. Harry Hays in Agriculture, Hon. Mitchell Sharp in Trade and Commerce, and the Hon. Maurice Sauvé in Forestry were all concerned with agriculture and sometimes they differed publicly with one another on farm policy. To add further confusion, Mr. Pearson himself chose to announce the party's farm platform, in kicking off his election campaign in Winnipeg, rather than having the minister of agriculture do it. That record of uncertainty and division has now been rebuked by farm voters.

The government might console itself with the view that farmers are a minority group. But agriculture will remain the nation's number one industry. In total value to our economy, it has no match. Canada will not be strong without a strong agriculture. We don't believe that any party will govern Canada for long without a program that meets the needs of its major industry and of the people in the wealthy and fast developing regions of the country beyond the industrial center.

The challenge to the Federal Government is to provide strong leadership at this time. This will call for a minister of agriculture and for a program which can win the confidence of farm people and of farm leaders so that the development in all regions can be co-ordinated and can move ahead rapidly within the framework of a national program. V

Co-ordinate Farm Development

FARM PEOPLE in every region of Canada are becoming aware of the tremendous opportunities now before them to develop their farm resources. That development is underway.

In the Maritimes a rapid move toward more intensive farming is taking place. The big centers of population there provide a ready market for much of what will be produced. Quebec, after taking a fresh new look at its agriculture, is laying plans to expand its farm output by reorganizing farms into economic units and by adopting new farming techniques. Ontario has turned to intensive farming, with more emphasis on livestock and special crops. Prairie farmers who have consolidated their farms and turned to mechanization to gain efficiencies in grain growing are now turning to more intensive farming and finding that they have the resources to produce livestock just about as cheaply as anyone on this continent. Some prairie hog and cattle producers have already wondered aloud if their area

might not someday rival the United States corn belt as a major livestock producer.

Farmers across the country who are caught up in this development will have little time to consider the interests of Canada as a whole. Yet, if the development in each region is not co-ordinated into some overall pattern, the result could be a weakening rather than a strengthening of Canada. It is the Federal Government that must provide the leadership to see that this does not happen. Fortunately there is indication that Ottawa is moving in this direction.

Through ARDA, it is seeking and finding ways to assist in the rehabilitation of depressed rural areas, of triggering community initiative and action by people to help themselves. A trial program of this nature now underway in Nova Scotia is described elsewhere in this issue of Country Guide.

In its election platform, the Liberal Party promised to make federal resources available

in all provinces to provide a Canadian Farm Management Service. This should be followed up quickly. The Liberals also committed themselves to retraining programs for farmers who can't hope to build their farms into profitable enterprises and who choose to quit farming. It promised an extension of unemployment insurance to farm people, a new mortgage program for farm housing, and an expansion of the research and production program of the Canada Department of Agriculture.

The direction of the Government's farm program is sound. Now the Government must find the far-sighted leadership to carry it out. This is essential if there is to be rapid and efficient growth in all farm areas—the kind that can contribute to the development of a strong united Canada. V

How Much Service?

RECENTLY THE president of one of our major farm machinery companies sounded an encouraging note for those farmers who have been held up, in vital seasonal work, for want of parts. He said, "We are not the best in the business — but we intend to be!"

We hope that all companies will aspire to be the best in the business. Just in case any of them are looking for an example to follow we pass along the experience of a British farm machinery dealer. When a farmer calls for a part that is not in stock, the dealer pays out to him one pound sterling in cold hard cash; if by 9:00 a.m. the following morning the part is still not available the farmer becomes entitled to a further five pounds. This latter bounty is equivalent to the better part of \$15.

How is this program working? During one period in which the dealer sold 6,000 combine parts, he only forfeited three pounds in the process.

Many farm machinery dealers like to boast that they will service what they sell; how many would have sufficient confidence in their parts department to back their claims with free dollar bills? V

The Christmas Story

AND JOSEPH also went up from Galilee, out of the city of Nazareth, into Judaea, unto the city of David, which is called Bethlehem; (because he was of the house and lineage of David:)

To be taxed with Mary his espoused wife, being great with child.

And so it was, that, while they were there, the days were accomplished that she should be delivered.

And she brought forth her firstborn son, and wrapped him in swaddling clothes, and laid him in a manger; because there was no room for them in the inn.

And there were in the same country shepherds abiding in the field, keeping watch over their flock by night.

And, lo, the angel of the Lord came upon them, and the glory of the Lord shone round about them: and they were sore afraid.

And the angel said unto them, Fear not: for, behold, I bring you good tidings of great joy, which shall be to all people.

For unto you is born this day in the city of David a Saviour, which is Christ the Lord.

And this shall be a sign unto you; Ye shall find the babe wrapped in swaddling clothes, lying in a manger.

And suddenly there was with the angel a multitude of the heavenly host praising God, and saying,

Glory to God in the highest, and on earth peace, good will toward men. V

St. Luke, verses 4-14.

Hogmen Look Ahead

250 hog industry leaders gathered at Purdue University, Lafayette, Ind., in November for the 8th National Pork Industry Conference. Field Editor Harold Dodds was there and he reports



U.S. hog producers are

- ✓ **getting ready for low prices**
- ✓ **using new management techniques to cut costs and boost profits**
- ✓ **resisting any move toward hog price controls**

HOG FARMERS let the air out of industry and university representatives by telling the 8th National Pork Industry Conference that producers don't want the government or any other group stepping in to reduce the risks of hog price changes.

Bill Rothenberger, president of Indiana Pork Producers' Association, surprised the group with his statement that "hog risks are all due to poor hog management." Bill explained it this way. He and his brother work hard to reduce all the risks—those from disease, breeding, and price—by using high level management. By going to hog meetings and visiting universities, he feels they have obtained a considerable edge over the producer who is not keeping up to date; and he, for one, would like to pit his planning and management skills against all other hogmen to see who can do the best job.

Bill obviously represents the independents, the hogmen who believe they can do a better job of handling risks than the average producer. He made this clear in his statement, "Hog farmers don't want to shift the risk of price changes to someone else. It would relegate us to a common level, a low level. We don't want to be put through the same wringer as the poultryman." Another producer chipped in, "We don't want to eliminate the risk of price changes from the hog business, we just want to know about it before the other fellow."

So the independents pointed out, to the chagrin of the other speakers,

that hogmen are a hardy breed. They haven't much time for talking about government insurance, futures or other schemes to cut down their chances to make or lose a pile when the price changes.

This was one of the surprises of the morning's discussion when 250 pork industry leaders gathered at Purdue University, Lafayette, Ind., on November 11 and 12. This annual session tackles the top issues in the American hog industry. With prices running at an all-time high, it seemed logical to examine ways of cushioning the blow that's bound to come when prices skid.

Don Parrlberg, of the Ag. Economics Department at Purdue, explained a hog price insurance plan. This scheme would, in effect, share the profits and losses between member hog producers and the government on a 50-50 basis. This would cut a hog producer's risk in half, and in theory should encourage more stable production.

However, Don pointed out two major shortcomings of this plan. First, it was open to government juggling and could become an income-raising program rather than an income-stabilizing scheme. Second, if the plan started in a low price year, membership would be high and the plan could run a big deficit. Another disadvantage is the great number of accounting records necessary for year-end settlements.

The meeting considered a futures market for hogs. The question here is, no one knows for sure whether

farmers would use hog futures to reduce risk or to increase their speculation. And if farmers really don't want to reduce risks this way, then futures will never be successful. The hog industry faces the same questions that Jim Clarke, president of the Winnipeg Grain Exchange, mentions in his discussion of beef futures elsewhere in this issue.

U.S. hog farmers, at least the ones we heard, want to take their own chances on hog price changes. Many Canadian hog farmers have told us they feel the same way.

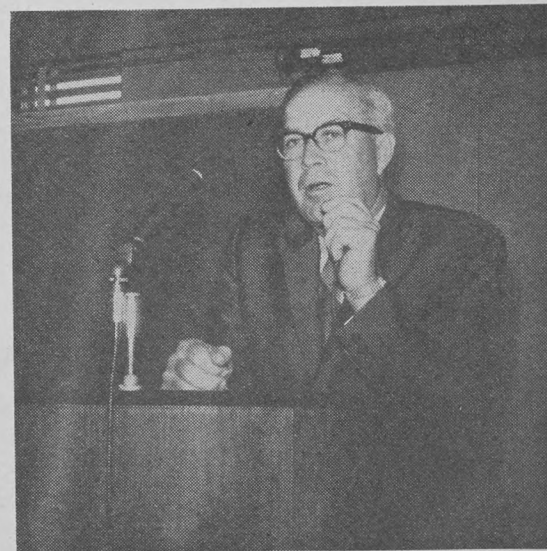
If you want to reduce price risks in your hog operation here are some things you can do:

- Get hold of the best market fore-

casts that you can get your hands on for long-range planning.

- Note the seasonal and annual trends that occur regularly.
- Watch day-to-day and week-to-week market fluctuations so you can make the best decision on when to sell.
- Check sales prices throughout the day to determine if there is a preferred time for your hogs to arrive at market.

This is what Bill Rothenberger meant when he talked about "high level management." His wife, he chuckles, has another term for the high level management that means he goes to so many hog meetings—she calls it "goofin' off."



**Bill Rothenberger—
"We don't want to be
put through
the wringer like
poultrymen"**

Some farmers in eastern Ontario who suffered extremely heavy crop losses last summer will be able to apply through the offices of their agricultural representatives for additional special assistance under the Federal-Provincial Adverse Weather Assistance Program.

A request by the Ontario Federation of Agriculture for feed freight assistance on Ontario-grown grain shipped to Quebec and the Maritimes for feed has been turned down by the Honorable Maurice Sauvé, the minister in charge of feed freight assistance.

Premier John Robarts of Ontario has announced that his government will not extend financial support to Farmers Allied Meat Enterprises, the troubled co-operative which lost

so heavily in an ill-fated venture to purchase Fearman Packers at Hamilton, Ont. In a letter to president Mel Becker of FAME, he said, "Careful study of the Report of the Royal Commission that investigated the affairs of FAME cannot lead one to the conclusion that it would be prudent for the government of this province to extend financial support to the organization."

A conference of Canadian hog producer representatives will be called by the Canadian Federation of Agriculture next April to consider forming a national producers' hog improvement organization and to consider revision of the hog grading system.

Quebec, with a budget approaching \$100 million, is spending

more for its agriculture than all other provinces together, says Dr. Ernest Mercier, Deputy Minister of Agriculture and Colonization for that province. The aim is to increase farmers' income and to double the number of economic farming units in the province.

Farmers in areas which have suffered serious crop losses this year and who have outstanding loans with the Farm Credit Corporation or the Veteran's Land Administration may apply for a deferment of the repayment on their loans.

Forestry Minister Maurice Sauvé has warned that the world is losing the war against hunger. In talking to the United Nations Food and Agriculture Organization, he said if our generation fails to win the war on hunger, much of the blame before the bar of history will be ours.

Cash income received by farmers from farming operations in 1964 was \$3,455.8 million according to preliminary estimates, 8.5% above the record high of 1963.

Ontario is continuing its aggressive search for export food markets. Twenty food suppliers from the province stocked the exhibit of the Ontario Food Council at a trade fair in Cologne, Germany, which attracted more than 200 valid trade enquiries.

Britain's Egg Marketing Board has found a novel way to advertise its product. It has arranged to turn regular buses into egg buses in which hostesses will tell passengers "Don't pay your fare today but use the money to buy an egg for breakfast tomorrow and you will feel better." The total fares will be charged later to the Board.

Alberta's Centennial Project which will start next year is a tree planting project designed to beautify the province and to establish living centennial monuments for the future. School boards and committees are responsible for starting projects which will operate through rural and urban school divisions.

Sugar beet growers will receive a deficiency payment of \$3.15 per standard ton from the Federal Government on their 1964 crop. Total payment will be about \$4 million.

When North Dakota farmers have annual gross incomes of at least \$10,000 per year, the state will be in a better position to attract industry and will be a wonderful place to live, an extension economist said at a recent seminar.

"Water in Saskatchewan Agriculture" will be the theme of the University of Saskatchewan's 1966 Farm and Home Week in January.

British Columbia is attempting to clarify its short-term and long-term goals for agriculture by holding an annual agricultural outlook and development conference in various regions in 1966. All those people

with an interest in agriculture will be invited to take part.

The Ontario Government sees an opportunity to increase exports of maple syrup and as a consequence is sponsoring a series of maple syrup days throughout the province. Producers and others in the trade will discuss better and more efficient production and marketing methods.

Two hundred bull calves representing 40 sire groups have begun a 168-day feeding test at the University of Saskatchewan beef cattle test station. This is the second year of operation for the station which operates entirely under the new Canadian Beef Cattle Test Station Policy.

For the 4th year in a row total farm cash income in Canada set a record in the first 6 months. The total for that period of 1965 was \$1.73 billion.

The National Farmers' Union is proceeding with its Eastern Drought Relief Fund project, says President Roy Atkinson. He said farmers who wished to contribute grain to the fund need only deliver it to their elevator agent and ask that the cash ticket be made payable to the Eastern Drought Relief Fund. The contribution will then be channeled to the fund by the elevator company. Atkinson said, upon return from a trip to Eastern Canada, that farmers there need assistance because they lack crop insurance and were hit hard by drought.

Realized net farm income for 1965 in the United States has been estimated at \$14 billion, up 8% from 1964 and the highest since 1952.

Farmers have mechanized their field operations rapidly and the next logical step is to mechanize the farmstead, says Leo King, secretary-manager of the Saskatchewan Implement Dealers Association. But he said that farmstead mechanization will not come as rapidly because it involves a great deal more planning and the equipment is of a much more permanent nature than field machinery.

Average net farm income per operator in 1964 was \$6,400 for the Barrhead, Westlock and Mayerthorpe Farm Business Association in Alberta. Capital investment averaged \$62,000 and the average operator earned 6.4% on his investment after \$3,500 had been deducted from the net income for wages to management. Farms are predominately diversified with beef cattle, hogs and crops providing the bulk of the receipts.

The 13th World Poultry Congress will be held in Kiev, U.S.S.R., August 15-21, 1966. Russia's poultry industry has made rapid progress and now ranks as one of the largest in the world; current production is some 100 million cases of eggs and three-quarters of a million tons of poultry meat. The 5-year plan end-



HAIL THE NEW MONARCH, LEO II. He shall reign as our new trademark. The crowning of the new King coincides, appropriately enough, with our 30th Anniversary. Clothed in the robes of a new authority, he boldly proclaims that we shall steadily broaden our product line, streamline our services and proudly continue to manufacture a noble line of pumps, mixers and hydraulics. So be it.

MONARCH MACHINERY LIMITED

TORONTO WINNIPEG VANCOUVER

ing in 1970 calls for the creation of hundreds of large-scale egg and broiler factories.

Manitoba's proposed 8-week short course to train farm laborers was postponed because those who intended to take the course were fully employed and hesitated to quit their jobs.

Net earnings were \$599,576 for United Grain Growers Limited during the fiscal year ended July 31. This was down from earnings of \$1,018,000 during the previous year, a drop attributed by President A. M. Runciman to a reduction in storage and handling earnings in both country and terminal elevators. The Vancouver terminal strike also was a factor.

The index of farm prices of agricultural products as reported by DBS is estimated at 259.9 for September, 14 points above the September 1964 figure.

Two new strawberry varieties, Redcoat and Ogallala have been recommended for Manitoba, reports CDA.

According to the chairman of Fisons Ltd., a farm chemicals manufacturer, we are presently in the fifth of five ages of power farming. The phases have been manpower, ox power, horsepower, mechanical horsepower and now chemical power.

Ontario's cheese sales should increase annually by 8 to 10 million pounds for the next few years, says Hector Arnold, chairman of the On-

tario Cheese Producers' Marketing Board.

If the voluminous sales of wheat to new customers such as Japan and China are to be maintained on a continuing basis, there must be a two-way trade with these countries, said G. E. Franklin speaking to the annual meeting of the Manitoba Pool Elevators. He said the concept of two-way trade as a basis for agricultural surplus sales has been propounded for many years by farm organizations but many farmers and the business communities had tended to ignore the implications. Massive wheat sales recently have focused the spotlight on export opportunities in countries which are not traditional customers.

Soil moisture conditions on the prairies hold out promise of another good crop next year. In southwestern Saskatchewan in October, available soil moisture in summerfallow fields was 50% higher than the 25-year average while in stubble fields there was over twice as much available moisture as the average at that time of year.

Here's how the agricultural outlook shapes up in the United States. The American people will eat better and at less real cost than they do today. Grain surpluses will disappear and the surpluses in cotton and tobacco will be substantially reduced. Farm exports will be higher with most of the increase in dollar sales. Net farm income will average nearly 2 billion dollars higher than

in the latter half of the 1950's. The Food for Peace Program will be an instrument of greater strategic importance in the American foreign policy than it is today. All of these things will come about by 1970, said Secretary of Agriculture Freeman at an outlook conference in Washington.

Saskatchewan's first community sheep pasture will be opened near Crooked River in the spring of 1966. It is hoped the pasture will help encourage more farmers to go into sheep production.

A shortage of money limited the program of the Ontario Federation of Agriculture last year, said President Charles Huffman at the annual convention. He said, "We have progressed as far as it was humanly possible to go on the money that was available. You might keep this in mind when making requests of the OFA. Your requests may be valid ones but it will take money to implement them." He also pointed out that because of the expanding corn acreage in the province, corn marketing plans should be developed.

Associate Editor Peter Lewington of Country Guide won two awards in the annual Canadian Farm Writers' Federation Annual Awards Contest. His article, "Chicken Litter Good," which appeared in the November 1964 issue of Country Guide won an Honorable Mention in the Press Feature Writing Category while an item he titled "Weighing the Scales" and delivered over CBC

radio won an Award of Merit in the Radio Feature Presentation Category.

TWO MILK POOLS

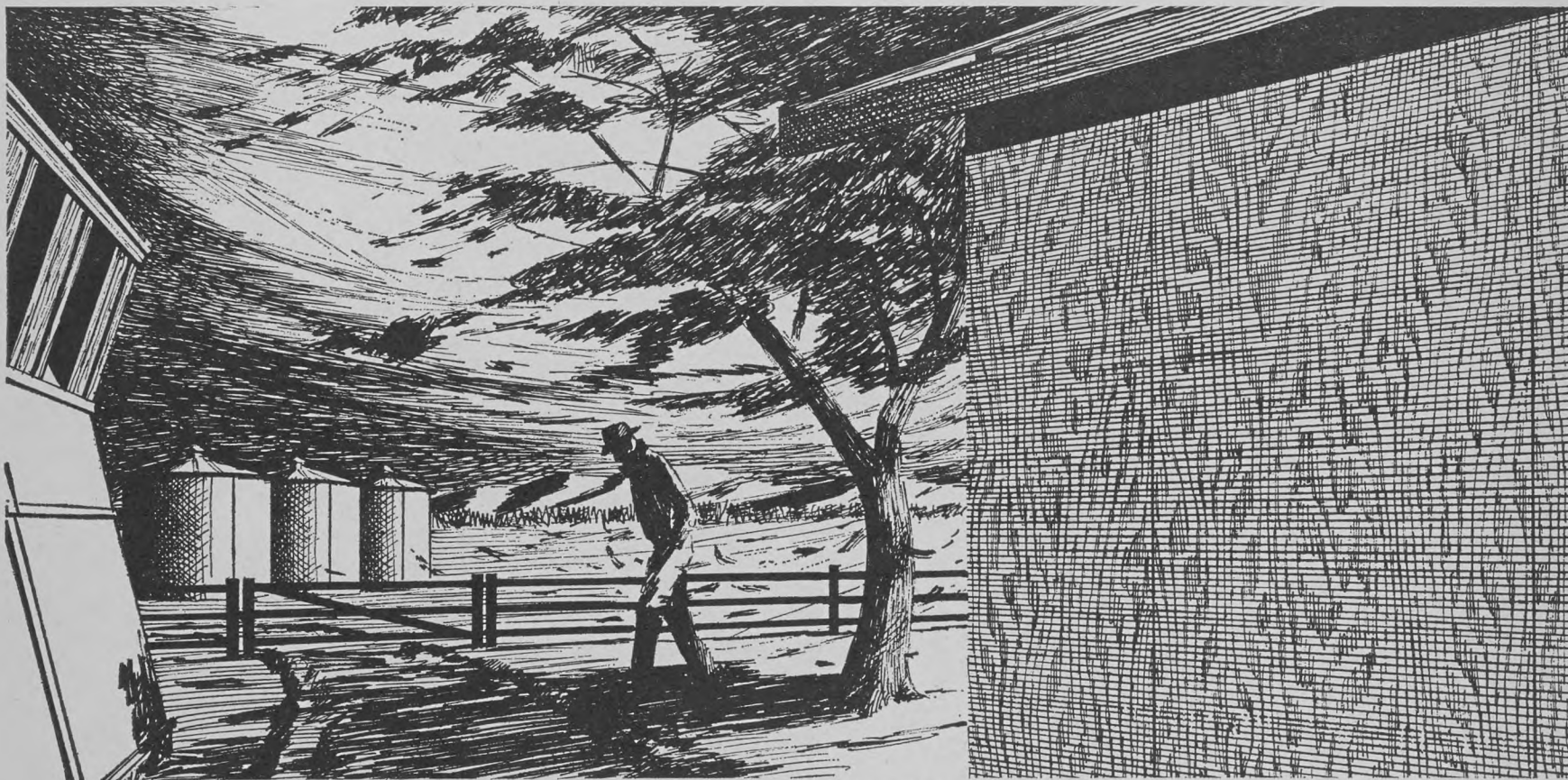
Although the long term aim of the Ontario Milk Marketing Board is for a single pool for all grade A milk, the Board will settle for two milk pools at the start. One will be for fluid milk and a second for manufacturing milk. All existing fluid milk producers will be included in Pool 1 but as the fluid market expands, producers from group 2 Pool who produce Grade A milk will be admitted into it.

The Board also plans to establish prices for three classifications of milk. Class 1 milk would include all milk going into the fluid bottle trade. Class 2 will include secondary milk from fluid producers and manufacturing milk going into products which are consumed domestically. Price for class 3 milk, which is milk in excess of domestic requirements, will coincide with the federal government's proposed dairy policy prices. ✓

MUST APPRAISE AGRICULTURAL POLICY

Canada must appraise its agricultural policies to see whether they are a hindrance to maximum production, says A. M. Runciman, president of United Grain Growers Ltd. Speaking in Toronto to the Ontario Institute of Agrolgists, he said the

(Please turn to page 41)



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"Let's talk FERTILIZER"

by Phil Parish, P. Ag., NORTHWEST BRAND FERTILIZERS

Having listened to some of the "wiseacres" throughout the year it's a wonder we had a crop at all! As soon as it became evident we were going to have a cold spring they were saying this meant we were going to have a dry summer. And just because it wasn't dry they were sure we would never get the crop off because they were predicting early fall blizzards and rain. Well, maybe they were partly right, but thank goodness farmers are made of sterner stuff and paid little attention to these "back fence" forecasters.

It certainly wasn't an easy year to farm, but with few exceptions farmers were able to complete the harvest. Grain yields are well above average and while grades are lower than originally anticipated, final payments will probably help to offset some of the losses in grade.

With sales of grain within the foreseeable future projected at a high level, farmers are encouraged to use all the means at their disposal to insure that production is adequate to meet these projections. Sales of other farm commodities such as forage seed, rapeseed and livestock surprised the experts this year and have helped to maintain farm income at a high level.

From the Swift Current Research Station where most of our prairie research studies on soil moisture are conducted, comes a report indicating that in October of this year, the available soil moisture in summer fallowed fields was 50 per cent higher than the 25-year average! The report goes on to say that there is over twice as much available moisture in stubble fields as the average at this time of the year. That is just about as good a Christmas present as I can think of. Reports coming in from other areas across the prairies indicate that moisture conditions are much the same.

But just because conditions look rosy this is not the time to relax and be content with our present methods of farming. If we are going to keep our family farms intact, and keep our sons on the farm, we must make the best use of all the agricultural research information that is available to us today. And only by so doing can we keep ahead of rising costs of operation and reduce the unit cost of production. Unfortunately, the average farmer does not make full use of the extension mediums and research data available to him — available at no cost either. Let's hope the "way of life" aspect of farming will remain with us always, but let's make farming pay those handsome dividends we talk about.

Not much wonder men are interested in automation. That's man's effort to make work so easy women can do it!

For every dollar you spend on Northwest Brand Fertilizers you should expect an average return of three dollars. Naturally this won't apply every year — some years you will go over or under this figure. But, crop yield data over the years strongly supports this statement. How did fertilizers pay off for you this year? Have you discussed the results with your Northwest Brand Fertilizer dealer? I am sure he would like to know. We would like to think your Northwest Brand Fertilizer profits helped to provide a better education for your son or daughter, or even a new house for Mom.

Stocks of fertilizer will be in better supply this season but just in case you haven't put your order in for Northwest Brand Fertilizer, better do it now and help out on that income tax report. Your Northwest Brand dealer is anxious to supply you with your requirements and a word from you would certainly help to make sure he has your order on hand when you need it. Consult with him about the best recommendations for your area.

Well, who really wants to talk business at this time of the year? Everyone gets so fired-up throughout the year, if they are not careful the Christmas season has flown by, and they haven't even taken the time to remember what Christmas is all about. Could I come in and be a "rockin' chair buddy" just for a moment, and from all of us at Northwest Brand Fertilizer wish you a Merry Christmas, and a Happy New Year!

Got any questions on fertilizer we might help you with? Please send them to Marketing Services Department, Northwest Brand Fertilizers, Medicine Hat, Alberta.



NORTHWEST BRAND FERTILIZERS

MEDICINE HAT, ALBERTA

GUIDE POSTS

UP-TO-DATE
FARM MARKET
FORECASTS

FARM PRICES for agricultural products continue to run ahead of the same period a year ago. This largely reflects higher prices for livestock and dairy products. These prices seem likely to at least hold for a while yet.

LARGE WHEAT CONTRACTS with China assure a market for a large volume of wheat well beyond the current crop year. Prairie farmers can continue to plan for big production.

FERTILIZER USE on the Prairies continues to grow rapidly with some experts predicting a quadrupling by 1970. Fertilizer, along with reduced summer-fallow, may enable many farmers to increase production without adding to their acreages.

RECORD TURKEY CONSUMPTION of 10 pounds eviscerated turkey per person this year seems assured. Big turkey crop is moving well and it may be necessary to draw on stocks to meet Christmas demands. Some imports of U.S. turkeys might come in, as their crop is a large one.

EGG IMPORTS from U.S. and U.K., although small in volume, are steadying egg prices. In the long run, this may help egg producers by holding down the increase in replacement chicks and preventing the heavy production which often follows a period of strong prices.

BROILER MARKETINGS will be down for the Christmas season when turkey is king. This should result in broiler prices holding more stable than is often the case at this time of year.

PRODUCTION CONTROLS in all phases of the Canadian poultry industry are receiving a lot of attention these days. It seems most likely these will be developed through provincial marketing schemes and co-ordinated nationally later on. Even producers who have fought this idea in the past are becoming tired of the "boom and bust" cycles which have characterized the industry.

BEEF MARKET prospects continue good. Large exports of feeders south of the border mean fewer to go on our own feedlots so that the demand will keep supplies moving at strong prices later on.

COW PRICES after running at low levels for several months, should improve appreciably during the early months of the new year.



Scotian Gold's 51,000-tree nursery at Woodville, N.S., produces apple varieties to order. These varieties are grown on rootstock selected by the grower

Nova Scotia's Budding Boom

Replanting of Nova Scotia's orchards has begun with emphasis on processing and dessert varieties

by **PETER LEWINGTON**

Field Editor

"ROLL OUT THE BARREL! Roll it right out!" is the current philosophy of Nova Scotia apple growers.

The barrel, the symbol of a traditional apple export industry, has become a museum piece. Not only is the barrel being tossed out, but also the varieties of apples which, for generations, went into those barrels.

Following a decade of decadence one-quarter of a million new trees will be set out within the next 4 to 5 years.

Nova Scotia apple exports were once based on a hard winter apple which could withstand crude handling, required no refrigeration and could still find a willing U.K. buyer.

Competition, processing, improvements in transportation, storage and refrigeration have combined to revolutionize the apple industry. In 1939, for instance, the Annapolis Valley boasted over one and a half million trees; by 1964 this had been cut to one-third that number. A provincial subsidy of \$4 for the removal of each tree contributed to this decline; there was little alternative because the market for those old style apples disappeared along with a lot of other things in the upheavals of World War II. The modern buyer is more sophisticated and more selective. To hold a place in this new market place, growers must have both the right varieties and the quality demanded.



Ronald Misner (L.) is shown as he inserts the bud of a processing variety. Then Laverne Barkhouse tapes the bud onto Merton Malling 106 rootstock

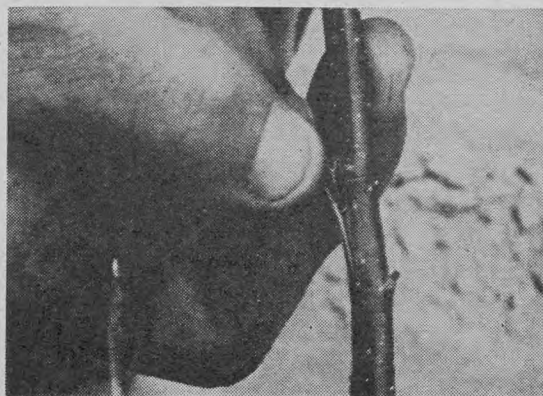
Apple production has a long cycle; apple growers have to plan farther ahead than those in just about any other branch of farming. Of all the hazards the apple producer must avoid, two are of overriding significance: being caught with the wrong varieties, and failing to have access to modern processing facilities.

Far-reaching changes are apparent in the 1964 sample census, a joint federal, provincial study which observes that, "Of the growers who indicated their intentions to plant trees within the next 5 years, 71 per cent intend to plant all, or at least some, processing varieties."

The N.S. Fruit Growers Association has already taken steps to see that census data is constantly kept up-to-date, so that informed planning becomes routine procedure.

These are some of the factors which will influence the N.S. apple industry of the future:

- No expansion is expected in the number of trees to be harvested in the next 5 years.
- Some 40 per cent of all the trees are 10 to 29 years old and a similar proportion is over 30 years.
- In 1939 some 214 varieties were harvested, with 25 kinds predominating. Now five varieties — McIntosh, Delicious, Cortland, Gravenstein and Spys—account for in excess of 60 per cent of the trees.
- The big get bigger; 23 growers, with over 3,200 trees each, account for 73.4 per cent of the new plantings.
- Long-term financial aid by the provincial government might have arrested the trend to concentration in a few hands. However, earlier this year, apathy of the smaller growers resulted in the outright rejection of the proposals.
- The proportion of younger trees, the ones which will be harvested in the years to come, tends to increase with orchard size.



A T-cut is made in the host stock in the direction of the prevailing wind. The bud is then cut from the bud stick and inserted in the T-cut. Demand for new trees has created a "budding boom"

- The percentage of trees receiving first-class care has shot up to over 80 per cent, a dramatic 20 per cent increase in the past 5 years.

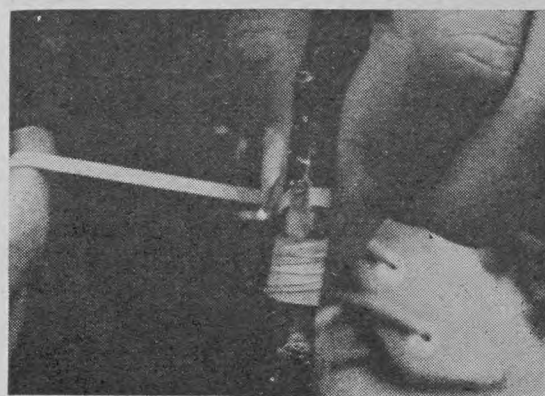
Spence Horsburgh of Cambridge Station, president of the N.S. Fruit Growers, is influential in both the planning of the industry and in the propagation of the varieties and root stock most likely to meet future demands.

"The economy of the valley," says Horsburgh, "depends a great deal on apple production. Buyers for the fresh market want a large red apple — people eat with their eyes. We also have to meet changing conditions and cater to processing demands. With higher labor costs we have to plant trees which are more easily harvested; we are aiming at a tree which is roughly two-thirds standard size." As the Maritimes are frequently subjected to high winds the really dwarf trees, which are shallow rooted and susceptible to damage, are less likely to gain in popularity. With regard to mechanization of the harvest, the question is, "when" rather than "whether."

The significant trend in new plantings is to the processing and dual-purpose varieties. At present 60 per cent of the Annapolis Valley production is processed, while 40 per cent is sold fresh.

Says Arthur Calkin, general manager of Scotian Gold, "I advocate 35 per cent for the fresh market; these would be predominantly McIntosh and Red Delicious. The rest, which goes for processing, would be broken down between solid pack, sauce and juice. Juice production has already expanded to the point where it is rivaling that of tomato juice."

One source of the new trees is the Scotian Gold Nursery at Woodville which has over 51,000 trees in various stages of propagation. Growers can order the varieties they want, grown in the root stock of their choice.



The bud is deftly secured with a rubber band; if the bud has taken by the fall, the growth above it will be cut off. The result will be a processing apple grown on a tree of the required size

The Grass That's Winning the West

by **CLIFF FAULKNER**
Field Editor

Russian wild ryegrass has enabled many farms and ranches to triple their livestock-carrying capacity

IF YOU ARE INCLINED to think that experimental farms are an unnecessary drain on the taxpayer, you should visit the dryland farming areas around Swift Current, Sask. Since researchers there developed Rambler alfalfa and newer varieties of crested wheatgrass and Russian wild ryegrass, large acreages of cultivated grasses have replaced native range, and livestock-carrying capacity has been tripled on many ranches and farms. But we have hardly scratched the surface of this potential yet. Key to this expansion (and the future) is the growing popularity of that fall pasture miracle—Russian wild ryegrass.

One Saskatchewan farmer and stockman who is enthusiastic about seeding tame grasses is Syd Olson of Stewart Valley, who farms about 2,800 acres with the help of his youngest son, Douglas. The Olsons crop some 1,100 acres of their total acreage, which includes both deeded and leased native range. The lease is mostly rough, droughty land in the deep, eroded coulee of Swift Current Creek.

It is the development of crested wheatgrass for early grazing, Russian wild ryegrass for late grazing and the drought-resistant creeping alfalfa, Rambler, that has enabled Syd Olson to increase his livestock until he has struck an even balance between cattle and grain.

"Right now I can't increase my cattle numbers unless I seed more land to grass," Syd explained, "so I think I'll leave things as they are for awhile. The market situation looks pretty good for both grain and cattle, and soil moisture reserves are high. We should get good yields next year."

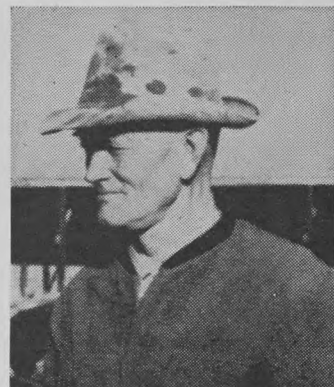
The Olson herd consists of 200 head of registered Polled Herefords. Because he can't increase herd size at present, Syd is strong on culling. This has increased the quality of his breeding herd. For the past 7 years he has been enrolled in the Federal-Provincial Performance Testing Program, which has given him the information needed to select the best animals for replacement stock.

"I get a lot of feed from 'nuisance patches,'" Syd told Country Guide. "That is from rough, eroded fields that are not good for anything but grass. I used to just leave these patches and let nature take her course. But since I've been seeding them, the carrying capacity has doubled."

"It's the Russian wild ryegrass that has made the big difference around here. In tough years I've had my brome and crested wheatgrass killed right out, but the Russian wild rye has thrived. I mix a bit of alfalfa with most of it because alfalfa builds nitrogen into the stand and keeps it going longer."

The Olsons seed their grass and alfalfa in 18-inch rows. By sticking to the following simple rules they have managed to stay clear of any serious bloat troubles: (1) Give your cattle a choice of various pasture types. (2) Don't turn them into an alfalfa stand if they are too hungry. (3) Don't seed too much alfalfa with your grass. A scant pound of alfalfa with 6 pounds of Russian wild ryegrass is all you need.

Although most of their grass and alfalfa is grown for feed, the Olsons have taken off some pretty heavy seed crops. The land along the rim of the coulee has proved to be best for alfalfa seed because the coulee provides an ideal nesting ground for that natural pollinator, the leafcutter bee. Russian wild ryegrass makes a particularly good seed crop because it ripens in midsummer, well before the grain harvest, and does not shatter easily.



Syd Olson

[Guide photo]

In fact, researchers Dave Heinrichs and Tom Lawrence from the Swift Current Experimental Farm have been so impressed with Olson yields that they maintain test plots of Rambler alfalfa and Sawki Russian wild ryegrass there. Syd Olson still has 20 acres of the original Rambler stock sown by Dave Heinrichs for seed multiplication.

"The Swift Current Farm has done a lot for the livestock industry of this area," said Syd. "I think this district (Ag. Rep. District 9) stands highest in the province for livestock right now. We could do a lot better than we do only it takes a long time to get people educated."

Another useful government project that has helped to stabilize the livestock industry in this area is the PFRA's Rush Lake drainage project. Like many of their neighbors, the Olsons have 40 acres of high-producing hay land at Rush Lake.

Syd summerfallows about half of his crop land in a normal moisture year, and divides the rest fairly equally between feed oats and market wheat. He always tries to keep his stocks of hay and grain a full year ahead to take care of any lean crop years that may come along.

"I don't sell feed and I rarely buy it," said Syd, "but I don't mind lending out a bit as long as I get paid back in kind."

Another way the Olsons have increased their forage yields is by the use of commercial fertilizer. On the grain they use 40 to 50 lb. of 11-48-0 to the acre, sown with the crop. Their cultivated grasslands get ammonium nitrate at 100 lb. per acre. This is broadcast in the fall so that it will be ready to go to work as soon as new growth begins in the spring.

The Olson farm contains the original homestead and pre-emption quarter sections taken out by Syd's father in 1906. It has been built up and added to over a period of three generations. Syd and his wife, Louise, have raised and educated five sons and four daughters on this land. Today, they have only son Douglas, and one daughter, Carolyn, at home. One year they had three boys attending University. There is no doubt that the increased production from their cultivated grasslands played a big part in providing the extra revenue needed for this.

Some day, researchers hope to see great pastures of Russian wild ryegrass and alfalfa all along the way from Swift Current to Calgary. To accomplish this they will first have to overcome the traditional "cowboy" thinking of many ranchers who subconsciously see any attempt to lure them into cultivating and seeding as another "sodbuster" trick aimed at the destruction of the wild Western range.

V



Basal leafage on this Russian wild ryegrass makes the plant a useful pasture grass

[CDA photo]



Doug Pulfer's new combine is a key piece of hog-producing equipment because it harvests hog feed

Feeders in the Farrowing Pens

FARROWING PENS are "out" and growing pens are "in" for hog producer Doug Pulfer.

In spite of a weaner pig shortage, Doug has decided to buy his feeders rather than raise them. "The good help you've got to have with sows is almost impossible to get," Doug explained, "and you can't mechanize the farrowing set-up to do without labor."

The combination of farrowing and finishing hogs demands more management and help than Doug can guarantee, while continuing to do a sound job with 20 beef cows and 1,000 acres of crop land.

He's not the kind of man to be satisfied with anything less than a first-rate job. After 20 years of raising and finishing hogs in the wheat country of southwestern Saskatchewan near Weyburn, he is converting his farrowing pens to finishing pens and plans to boost hog output to 1,600 a year.

This year, with building changes underway, he'll finish 1,200 hogs, 20 calves, and grow 250 acres of wheat along with 455 acres of feed grain. Farm work is now split between Doug and his brother-in-law, Hodder MacConachie. Doug manages the field work while Hodder manages the hogs. Some part-time help is still required at peak periods, but during the past 6 months the two of them seeded and took off 705 acres of crop and marketed 600 hogs.

Hogs are grading a record 65% Grade A and the average feed conversion is 3.93 lb. of feed per lb. of gain.

"We try to market most of our hogs at 190 to 195 lb. each," Doug explained. "That way our grades seem to stay up better. But, when pork prices were high last summer, we did let some hogs get heavier, since we believed that there would be extra money in them. It surprised us that these heavy pigs graded a high percentage of A's too."

HOG COSTS

Doug Pulfer figures his hog feeding costs this way. An acre of his 40-bushel barley or oats feeds 3 hogs from weaning to market. Total crop costs, including charges for summerfallow land, work out to \$13 an acre. That means the grain to finish a hog costs Doug about \$4.43. Concentrate and special starting rations will probably boost that figure close to \$9 per hog, but this still puts him well ahead of the man who is buying all his finishing rations.

Doug's success is a direct result of a definite management program that he has established and proven for market hogs.

GOOD START

Weaners are fed a high antibiotic starter ration for 7 days after they arrive on the Pulfer farm. The ration is hand-fed to prevent overeating. This offsets the stress of trucking and new surroundings. Each pig is also vaccinated for erysipelas and receives a combination enteritis-pneumonia vaccine.

After this first week, pigs are switched to a commercially prepared 18% starter which is self-fed until they reach 45 lb.

Then they are fed a 15% growing ration, ground and mixed on the farm using home-grown grains while they last. The formula is $\frac{2}{3}$ barley, $\frac{1}{3}$ oats, to which is added 220 lb. of 40% concentrate per ton.

The 13% protein finisher is made of 1,900 lb. oats, and 100 lb. of concentrate per ton. Hogs go on the finisher ration after 125 lb.

Any problem of scours during the growing or finishing period is treated individually. However, if several pigs in a pen show signs of scours, then the automatic waterer is shut off, a trough is put in the pen, and pigs get medicated water for 7 days. Doug reports that this works well in every case. However, he doesn't have too many occasions when this type of treatment is necessary.

HEATED BARN

"The barns were always damp before we put the heaters in," Doug added. "Now it's always dry and much better for disease control. It just cost \$70 to heat my hog barn the first winter."

Both growing and finishing barns are heated with forced air from an oil furnace. The exhaust fans are connected to the thermostat so that in

by **HAROLD DODDS**

Field Editor

cold weather the furnace operates for a time to raise the temperature, then the fans remove stale air. This alternating schedule is designed to keep heat loss to a minimum and Doug reports it functions well.

LIQUID MANURE

"Each day we hose down the partially-slatted floor, and clean all manure out of the building into the cistern. Our holding tank is 14,000 gallons and that gives us 2 weeks' storage capacity if we wish. Normally we take manure out and spread it once a week.

"We put in a lagoon first, but because of land elevation, we had to pump the manure up from the barn, so it would run down into the lagoon. We installed a 4-inch pipe, 7 feet under the ground, but found that it stopped up, even when extra water was added at the hog barn. This happened during the winter, and again in the month of June, so we went to the liquid manure spreading unit," Doug explains. "This works fine.

"I'm not sure about the figures on the value of liquid manure," he told us, but pointed to the outstanding field of alfalfa where he spread it, and added, "It makes a big difference on the hay field."

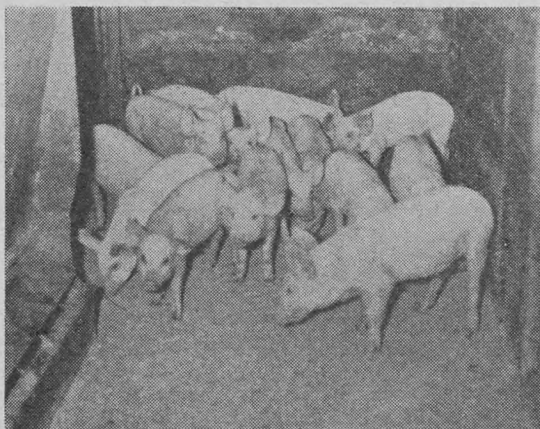
TEST CUSTOM MIX

This winter Doug plans to try a custom-mixed ration in place of his home-ground ration. There are several reasons. He wants to find out if more uniform grinding and mixing will really make his pigs perform better. Right now he has to change the hammers on his machine often, to keep it doing a good job of grinding oats.

He is also looking at various feeding setups with the idea of installing a limit feeding unit in the finishing area. "We aim to save labor," Doug explained, "but also expect it to save feed, and to improve our grades."

The shortage of good weaners from a reliable source is one of the problems that Doug has yet to solve. Right now he has to buy them at sales barns, and he admits that the supply is limited and there's a certain amount of risk involved.

In future, Doug Pulfer would like all his weaners to come from regular suppliers who follow sound health and breeding programs, or in other words, men who specialize in farrowing pigs the same way that Doug Pulfer does on finishing them.



The self-feeder is closed and new pigs eat the special antibiotic ration from the floor of the pen



Withdrawal from marginal land puts greater pressure on our limited supply of good land [Guide photos]

The Big Land Dilemma

by **PETER LEWINGTON**

Field Editor

ARE YOU LAND RICH or land poor? Is it wise to buy more land? Can you afford to sell?

To look objectively at land values in Canada is becoming increasingly difficult, but increasingly necessary. Events in the world market place, our own domestic market upheavals, credit largesse, government programs and the insatiable appetite in non-agricultural quarters for farm land, have all conspired to create a crisis in high land values. Many and diverse forces have zeroed in on the one enduring essential of farming — the land. To probe the seething ferment of Canadian farm land values is to produce conflicting answers; actions intended to help the farmer sometimes merely have the effect of giving him different problems. Agricultural policy has tended to produce piecemeal panaceas; it is time, perhaps past the time, to explore the forces affecting land values.

"Canada 1964," the annual federal publication on our progress and productivity, contains this significant phrase: "The value of capital invested in agriculture has increased by nearly 40% — largely due to rising land values." Now 65% of our investment in agriculture is tied up in real estate. It is indicative of an unhealthy imbalance when so much of our added net worth is attributed to the rising value of real estate. But worse, these are only paper gains; their immediate effect is to increase the annual tax bill the farmer pays. The prospect of a high sale price does not pay the current bills. Excessively high real estate values give farmers high built-in costs of production. If land prices go too high, the farmer is robbed of his competitive position.

The soundest basis for the valuation of farm land is its ability to produce profitably. Economists claim, and many farmers agree, that land capable of producing a 100-bushel corn crop is worth \$200 per acre more than 80-bushel land. Farmers who contemplate land purchases should make a clear distinction between the market price and their own ability to pay. Partial budgeting will tell whether the investment in land will

give an increase in net income. However, the ability of the land to produce profitably is becoming less significant as a yardstick; this is a trend which holds some peril for farmers.

During and immediately after the Second World War, land was undervalued. Back in 1885, when Ontario was the wheat province of Canada, land sold for \$150-\$200 per acre; only recently have farm values equalled such figures. As if to make up for this lag, prices are now spiraling upwards. The forces pushing them up often have very little to do with the ability of that land to leave a fair profit, but more land is now changing hands than at any time since the West was opened to agriculture.

The anomaly of rising real estate values is that it is occurring while the prices which the farmer receives for crops and livestock products is, in many cases, trending downwards. Let us explore the diverse pressures on prices.

LOCATION IS PRICE

Location is all important. There is a general withdrawal from marginal land as it becomes increasingly evident that, with present product prices, such lands are quite uneconomic for agriculture. Farmers caught in this predicament cannot afford to farm, neither can they afford to sell. Five thousand dollars for a farm will not go far in setting the farmer up elsewhere. It is in these cases that ARDA must exert its influence for social, rather than agricultural, improvement.

For wheat growers, the triple factors in land values are: access to markets, precipitation and the frost-free period. For the growers of fruits and vegetables, the key is access to processing plants. For the dairyman, it is access to a fluid market. Fluid milk sheds can be easily picked out merely by driving through the countryside because the milk price differential has been largely plowed back into real estate improvement. In much the same way, egg and poultry "sheds" are developing where the processing facilities and/or markets are available.

BUILT-IN INFLATION

Inflation has become built into our economy. It is a cliché to say that land purchase is a "hedge against the future." Land values have been rising faster than overall inflation and this has lured buyers into farm real estate. First-class land, having all the attributes of soil, climate, topography and location, is strictly limited. With burgeoning population there is no foreseeable end to the price pressures on good land. With the exception of wheat we are already a heavily importing country for agricultural produce. Had it not been for the added stimulus to production through the use of chemicals, this trend would have been even more marked.

HIGH FEED PRICES

World demands for all grains and oil seeds will be reflected in high feed prices by the 1970's. Farmers who have factory operations, dependent entirely on purchased feeds, will feel the pinch most of all. Such farmers might be wise to cushion their risks with land purchases.

Dr. Howard Patterson, Ontario Department of Agriculture economist, recalls that there were many such thriving feed enterprises in the 1880's that didn't depend on their own land. "They largely disappeared in the depression of the early 1890's and did not reappear until the period of cheap food in the 1920's," he said. "These, in turn, were largely wiped out in the depression of the 1930's and have only begun to reappear in the 1950's and 1960's. While we would hope that depressions like the thirties will not recur, any period when finished livestock prices fail to keep well ahead of feed prices, such as 1896 to 1920, seems to be a period of danger to large-scale feeding operations. It looks as though we may be entering such a period with a growing world-wide demand for cereals and oil seed crops, but no corresponding increase in effective demand for livestock and livestock products, except on the local market. If this is a correct assessment of the situation, we may be due for another swing of the pendulum in large scale feeding, except in those new situations where the feed is cheap and mostly home grown."

MORE CREDIT

Loosening the federal purse strings for agricultural credit has obviously been welcomed by farmers; last year Farm Credit Corporation loans were 43% in value above those of the previous year. Agriculture requires a large amount of capital relative to productivity, but more liberal credit is quickly translated into higher farm real estate prices. A prominent banker has pointed the warning finger at the growing practice of farm loans being made on the asset position rather than the farmer's earning capacity.

INDUSTRIAL USE

Some of our most desirable farm land is being devoured for residential and industrial uses. According to the Toronto Real Estate Board, "Speculative raw land adjacent to trunk sewers is being snapped up at \$8,000 per acre." In Britain, land speculation has become so rampant that the government proposes to nationalize building land. Various degrees of compulsion exist around many of our own larger cities, and numerous bodies, some responsible, some less so, have the big club of expropriation to enforce their land demands. If the bulldozer doesn't drive the farmer back from the city environs then property taxes will. Demands for better roads, more conservation and increased water supplies, all have a common effect: they take land out of production and increase the price of that which remains.

The Conservation Council of Ontario states bluntly: "Every step which removes part of the 12 million acres of good land in southern Ontario from agricultural uses drives agricultural production onto poorer land and means ultimately an increase in food production costs. This could reach a point of imbalance where food costs in Ontario become so high as to be detrimental to industrial expansion."

In the U.S., high land prices and labor shortages are sending farmers across the border to buy land in the Maritimes, Ontario, Saskatchewan and British Columbia. Land looks like a good investment to these men but it adds yet another pressure on our prices. Saskatchewan farm land, for instance, jumped 17% in value last year. An Iowa farmer who is expanding his holdings told me, "The time is close when it will be impossible to buy land at any price."

EVERYBODY WANTS A STREAM

The manager of a large firm of realtors exclaims, "The demand for country property is fantastic; everybody wants a stream, a bush and a view! City people are bidding up farm property for a radius of 100 miles around the largest cities and up to 40 miles from smaller ones." Horses now graze on good land too expensive to farm. Frequently, however, the stream, the view and the bush are on marginal land. Land in the right location on which cattle and their owners once eked out a precarious existence, is now selling in 2- to 5-acre lots for \$3,000 per acre. Around Toronto the depressing hand of the speculator is evident. H. D. Hood of the J. A. Willoughby real estate firm, told me, "We meet out-of-the-province buyers at Malton Airport and their first reaction is despair at the apparent decay of farming."

Mechanization, chemical weed control, fertilization and irrigation have all boosted the farmer's ability to produce; all these factors have accentuated the trend to larger farm holdings. Hydro is cheaper than prewar, while gasoline and fertilizers have not gone up as fast as some other agricultural inputs. Farmers utilize the inputs which have in-

creased in cost the least in order to economically boost production. The better land produces more and more.

Farmers who want to round out their acreage make tough competitors for the young farmer. Land in Kent County is selling for \$800 per acre. Just across the border in Michigan, where there is a great similarity to southern Ontario, an advertisement in a paper tells the story: a farmer has a standing offer to pay \$750 per acre for land offered for sale within 5 miles of his present holdings!

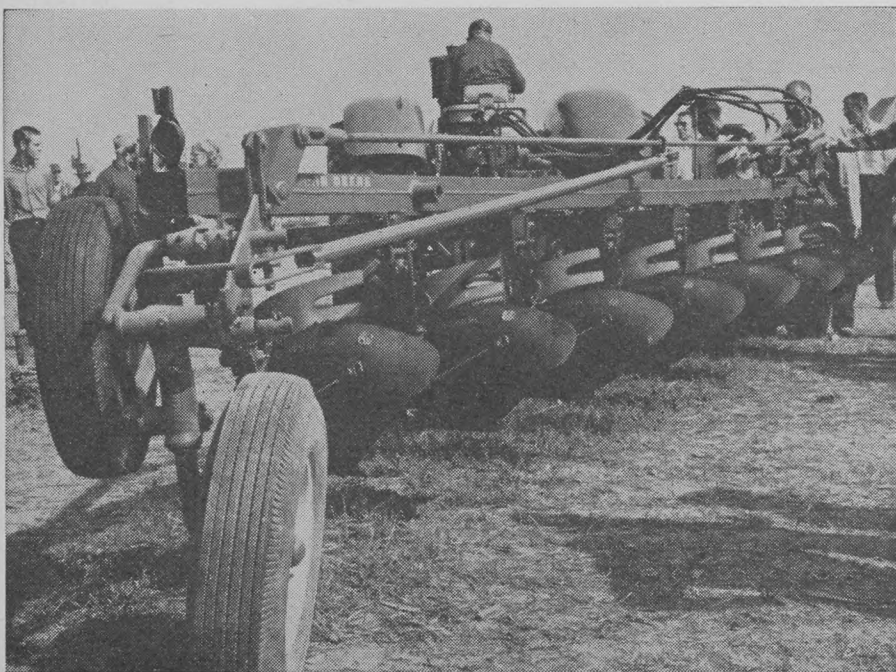
WHAT ABOUT QUOTAS?

Farmers across Canada who have embraced the new technology and have found that product prices dropped as their ability to produce increased, look to quotas and restrictions on production. Is this really the answer? The Encyclopedia Britannica states, "The chief effects of production controls were to bid up the price of land. This is a benefit to the present landowner. Once the land has been sold there is no more benefit to anyone. Young persons starting to farm find it more difficult to raise the amount of capital required for ownership."

Back in 1933, Ontario flue-cured tobacco growers implemented controls "to meet a temporary condition"! Over 30 years later controls remain and they have had the effect of boosting land values. Until recently fluid milk producers have been paying up to \$25 per pound of milk quota in order to increase their quotas. In British Columbia broiler rights have been changing hands at 35 cents per square foot of licensed growing capacity and banks are making loans for such purchases. In Ontario the Broiler Chicken Board has granted quotas to 825 producers. No new quotas are being allotted and applications will not be considered until such time as the Board requires additional growing facilities.

The experience in many countries, and with diverse commodities, has been that farmers have a flair for circumventing acreage restrictions by producing more on their best land; tobacco is a prime example of this. The French now have inspectors tramping through the fields counting the number of plants and pulling the surplus above the requisite number! In Ontario no new winery license has been issued since 1929 with the result that a license may be worth more than the plant. The point at issue here is not whether farmers should organize to help themselves but rather to emphasize the danger inherent in the right to produce becoming an added cost of production. The farmer who buys the right to sell fluid milk, broilers, turkeys or tobacco will expect to recoup at least part of this outlay when he sells his property.

Combine all the forces which are remorselessly pushing up land values with the sort of restrictions on production which in turn become capitalized costs, and you have "The Big Land Dilemma."



First comes the big machinery, then farmers outbid their competitors for adjacent property to increase their holdings

NUMBER 10 IN A SERIES

Let's chat with John Blakely about history and the common nail

You probably never thought of something as ordinary as a nail having a history. There are Biblical references to the use of iron nails as far back as 1100 B.C.

British Artisans made nails for their Roman masters by hammering a piece of iron on an anvil. In North America, pioneer families would spend their winter evenings hand forging iron nails on a small forge beside the fireplace. The first machine to make nails from cold iron nail rod was invented in 1777 in the United States.

Wire nails did not put in their appearance until 1835 when a machine for their production was invented in France. This machine was the first means of producing nails in quantity at a low price and was, therefore, responsible for wire nails becoming the most popular fastener.

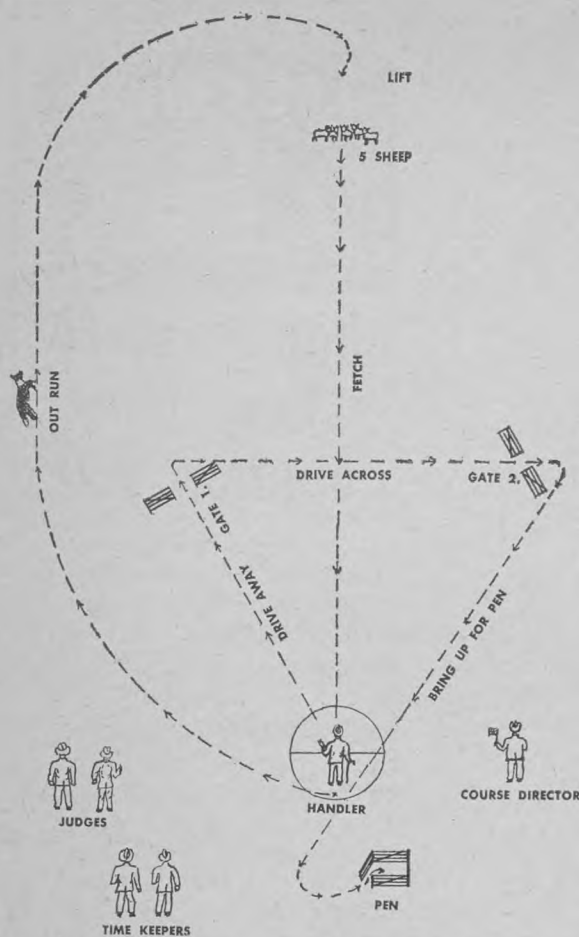
As wire production techniques were improved nail surfaces became smoother reducing the nail's gripping ability in wood fibre. This fact resulted in efforts to improve the nail's holding power. Special coatings, deliberate deforming of nail shanks, barbing, threading and finally the spiral nail developed by Stelco, are the steps the common nail has gone through in the interests of becoming a good fastener.

The important point of all this is that "Ardox" Spiral Nails didn't just happen. They are a step in a centuries old series of nail development in which Stelco is a leader. An important step too — for "Ardox" Spiral Nails combine an increase in holding power, a reduction in wood splitting, a reduction in effort to drive, and more nails per pound, to meet modern nail requirements.



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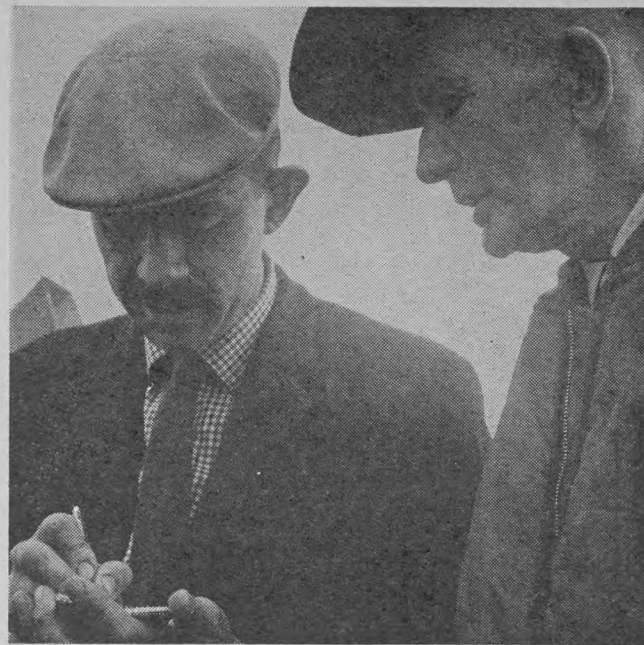
Plan of course as used at the Canadian Open Sheep Dog Trials, Bond Head, Ont., September 25, 1965



Lewis Pence of Sidney, Ohio, with Penny, in the handler's circle ready for the start of the trial



Mind over matter? The "eye" of the dog asserts authority over a flighty ewe



[Guide photos

The judge, Dr. Brian Nettleton (left) of Truro, N.S., tells George Conboy of Wanatah, Ind., the results of the draw for running order

Shepherds and Dogs

by **PETER LEWINGTON**
Field Editor

FOR A PLEASURE - PACKED day of drama, humor, excitement and sheer fascination in the skill of shepherds and their dogs, nothing tops a sheep dog trial!

The first Canadian open sheep dog trial was held recently on the rolling fields of J. K. Crang's farm at Bond Head, Ont. It was a modest affair, but in this era of big, brassy and phoney excitements, city and farm people who attended found a common bond in the honest sport and festival of shepherds and their dogs. For the city people, farming assumed new values; as they returned to the steel and concrete caverns of the city, they took with them a new awareness of farming. For the farmers who watched in their fascinated hundreds, it will be hard to be content any longer just to say, "Sic 'em!"

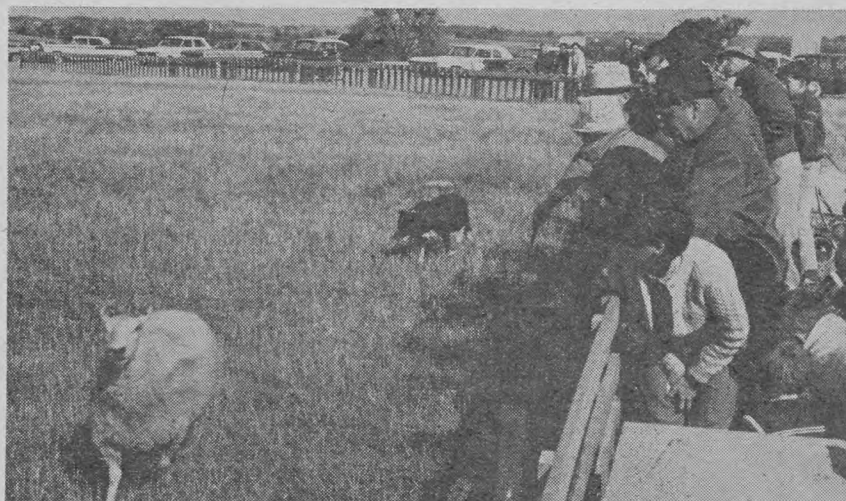
For some people the working Border Collie may be a sporting dog, but for others accustomed to labor shortages, a dog is a friend and an economic necessity. Border Collies have been trained to herd sheep, cattle, hogs, ducks and even ostrich! Individual Border Collies may differ widely in type and color; the breed has been selected for working ability, instinct, intelligence and temperament.

References to the prowess of these wonderful dogs of the Border Country between Scotland and England go back as far as the 16th century. The good working dogs have "style," the remorseless crouching approach on their quarry; they also have a "strong eye," the ability, probably an instinct handed down from the first wild dog, to fix a lesser animal with an unwavering stare and impose its will. The good Border Collie knows when to bark and when to bite; but it knows that no unnecessary roughing will be

tolerated. It knows instant obedience; it casts wide at the sound of its master's whistle and knows exactly what is expected of him at the staccato cries of, "Way to me!", "Down!", "Get up!" or "Come by here!"

A sheep dog trial is a grueling test of a handler and his dog. The handler stands with his dog in a ring which is some 20 yards across. At the signal of the course director, five sheep are released some 400 yards away. At the command of the handler, who must remain in the ring, the dog casts wide on the "out run" and comes quietly behind the sheep, "lifts" them and then herds them back to the ring on the "fetch." From the ring the sheep are driven some 80 yards at an angle, through gate number one, across a similar distance to the second gate and then back to the ring. The handler may now leave the ring and assist his dog in penning its sheep. Points are awarded for whatever success is achieved at each stage of the intricate course and a time limit of 15 minutes is imposed.

Whenever you deal with living things you can expect the unexpected—especially if you are trying to maneuver a flighty flock of Maritime crossbred ewes, noteworthy for their speed and spirit of independence! Each contestant in a sheep dog trial puts on his own unique performance. No two are alike or even similar. Perhaps this is why the sport has grown in interest since the first trials in 1873. It is why, from a beginning in the fall of 1965, sheep dog trials are likely to become events of growing popularity in Canada.

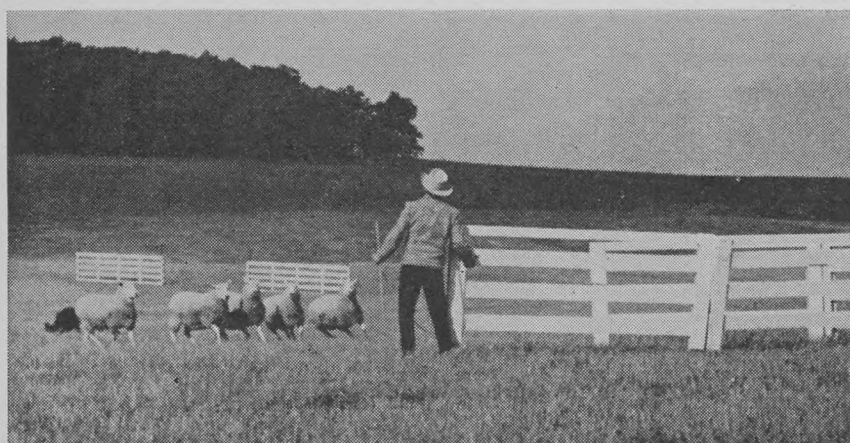


A tense moment as a wayward ewe is thwarted in her bid for freedom



Crisis! The five sheep split up and make bids for freedom

on Trial



Within feet of penning the sheep



Every good Border Collie, whether he is working sheep or not, avidly watches every move of shepherd, sheep and competing dogs

Jethro Crang, host farmer to the sheep dog trials, awards the winner's trophy to Lewis Pence



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According to Stewart Searle Jr. management is a five-step process

Measure for Management

by **ROGER FRY**

Field Editor

This farm saved \$900 in dairy feeds in 1 year by using its budget as a measure of its management instead of just a record of its plans

EVER WONDER what went wrong with your plans for your farm operations? Somehow you didn't quite get everything done, costs were higher than you expected, production a bit less and profits not nearly so good. Before you lose any more sleep trying to compare your half-forgotten plans with your performance, take a look at how Searle Farms uses its budget to make this important comparison.

Searle Farms consists of two units, a 7,000-acre ranch in Manitoba's interlake region, and a 3,600-acre farm at East Selkirk, Man. The ranch, with 800 acres in hayland and the balance in pasture, is used to pasture and winter light steers until they are ready to go into the feedlot. The feeding operation, which turns out 5,000 finished steers a year, is located at the farm headquarters on the East Selkirk farm. There is also a 100-cow dairy unit on this property. About 500 acres of the headquarters farm is used for cash crops and the balance to grow feed for the cattle. All the forage is grown on the two farms but most of the grain is purchased. The farm is owned and operated by the Searle Grain Co. Ltd., Winnipeg, Man.

In the management of Searle Farms the budget is used for more than just planning the coming year's operations. Every month the farm records are compared with the budget for that month, as a check on the success of the operation. Stewart Searle, Jr., explained that to be used properly the budget must be applied to all stages of the management process. There are five of these:

- **Planning.** This is when you decide your production objectives in terms of: pounds of meat, milk or eggs; tons of grain, hay or potatoes; and dollars of income for you, the operator and manager.

- **Organizing.** Now you decide how to allocate your resources (acres of land, hours of labor, tractor hours, and dollars for supplies) for each objective. Sometimes they won't go around and you have to reduce or change your objectives.

- **Selecting and delegating.** Here you choose the best man for each job and give him the responsibility of getting it done. This is an important stage in large business organizations but for farmers who do not use hired labor it is a very quick decision.

- **Controlling.** This is where you see how well you are doing. You compare your production against your objectives, your costs against your estimates and your profits against your expecta-

tions, taking whatever action you can to correct differences.

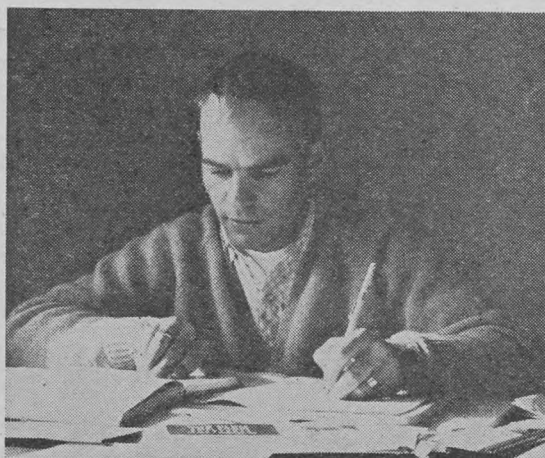
- **Evaluation.** Here you decide whether your objectives were the right ones in the first place. After you decide whether to change objectives or stay with the original ones you start back at the planning stage again.

"This is a continuous process but most operators have trouble getting past the first three stages," says Searle. "Using the budget for the control stage forces you into the control and evaluation phases. This is what makes it work."

"Used this way, the budget becomes a comprehensive analysis of revenues and expenditures for the year ahead. It forces us to search for enough information to enable us to make an educated guess instead of a wild stab in the dark. Once we are satisfied that all the information in the budget is reliable, we can stop hoping we will make a profit next year and start to be reasonably certain."

The Searle Farms budget is prepared in the fall by farm manager Roger Saunders, and the men who supervise each part of the farm operation. Each supervisor works on the budget for that part of the farm for which he is responsible. When the complete details of the budget are worked out, it is checked by the company accountants and finally by Searle himself. It is seldom approved in the first form, but usually goes back to the farm staff for more details and changes.

"The figures have to be realistic," said Roger. "In the first rough plan we often arrive at costs that are too high to allow for profit. Then we have to go over our figures and change our plans."



Roger Saunders records every detail of the farm operation in the budget before the season starts

We have to find less expensive feed ingredients, or simpler ways of getting the job done in order to get our expected costs within reason." To do this, we use information from past production and cost records, university and government bulletins, and text books.

COSTS TOO HIGH

Roger gave some examples of how the budget worked in his management program for Searle Farms. In his first calculation of a cattle feeding budget the costs came out too high, leaving no profit for the enterprise. In reworking the budget he found that he had allowed 4 lb. of bedding straw per head per day, the figure that had been included in previous budgets. However, there had been a change in management practices; the cattle were now being wintered in a bush field instead of a yard with a shed for shelter. Under these circumstances, Roger decided that he could reduce the straw allowance by one-half to 2 lb. This was only one of several changes that he had to make in this budget before it indicated a profit.

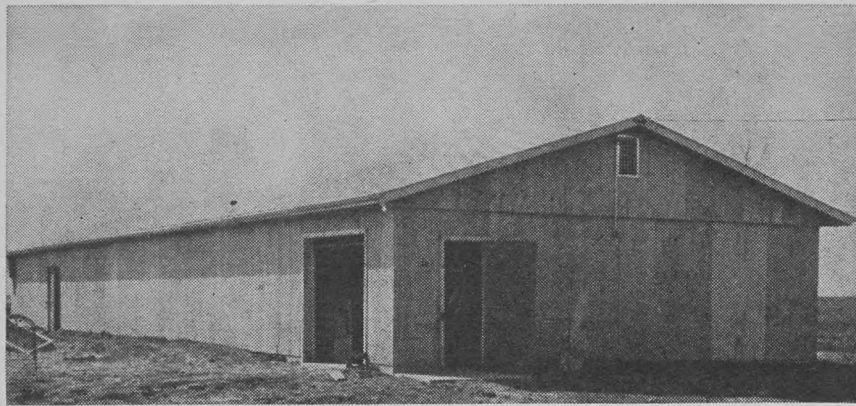
When the 1966 dairy budget was originally set up the dairy ration was priced at \$53 per ton. When the company accountants checked this budget against past records, they questioned the cost of the ration. "We thought we had the cheapest ration that would do the job," said Roger. "However, when we started to work out the price of alternate rations we found that we could shave \$6 a ton off the first price. This saved \$9 per cow or \$900 per year for the herd of 100 head."

Where did Roger find the information to make the change? "I substituted local ingredients in some of the sample rations in Morrison's 'Feeds and Feeding', I checked the price of local ready-mixed rations, and I worked out the price of rations reported in bulletins from the University of Manitoba," he replied.

How long did it take? "Not quite half a day, about 2 or 3 hours. I think \$900 is a good return for the time I spent on the problem." The revised ration has worked as well as the original ration was expected to work; milk production is currently up to the level expected in the original budget.

Roger also had an example of how the budget works as a check on the actual operation of the farm. In the budget for the 1965 field crops enterprises, the objective of the silage operation was stated as follows: "We intend to grow 10 tons wet weight per acre of all silages. The yield of corn is expected to be 15 tons per acre." Then

(Please turn to page 41)



Windowless farrowing barn with feed storage and workshop area at end [Guide photos]

Sow Unit for a Small Farm

Rather than buy more land, this farmer put in a sow herd

THE 240 FERTILE acres on which Henry Dueck was growing oats, wheat and fescue seed, all as cash crops, haven't been sufficient in recent years to make up a fully rounded farm enterprise. He wanted to expand his farm into the kind of unit that would offer a promising future for his sons, the oldest of whom is 14-year-old Randy. But with land selling at \$100 an acre or more in his community near Morris, Man., in the Red River Valley, he had to look to some other means than buying more acres.

That's why he turned to pigs, setting up a sow herd last year.

His first move was to plan and build a farrowing house. He had a carpenter do the work, and the building which measures 28 ft. by 100 ft., and was patterned after provincial department of agriculture plans, cost him about \$8,500.

Last spring, his herd of 25 sows farrowed for the first time.

He sells the pigs on contract to two local farmers according to a pre-arranged pricing agreement. The arrangement gives Dueck an assured premium market, and it gives the buyers an assured supply of quality hogs.

So far, the hog enterprise is supplementing his grain growing pro-

gram nicely. He takes his home-grown grains to the local feed mill to be ground and mixed with the required concentrates. This is then delivered back to him in bulk. In effect, the sow herd becomes a sort of manufacturing enterprise right on the farm, to supplement the grain-growing enterprise.

He uses his own labor, and that of his family, to turn the home-grown feed into weaner pigs for sale. It means the farm enterprise is now bringing in more revenue, although

he hasn't had to go out and buy more land.

His farrowing house is big enough to allow for future expansion too. The building has five double pens along each side (each pen holds two farrowing crates so he can handle 20 sows at a time). At one end are six extra pens for weaners or sows.

It's a building designed for labor efficiency too. A central gutter with slats over it allows for a liquid-manure handling system which drains into a tank at one end of the barn. A 20 ft. by 28 ft. area at one end of the building serves as a feed storage and workshop area.

His program is to work the sows as hard as possible, and this means weaning the pigs at 4 to 5 weeks, then breeding the sows the first time they come into heat.

Things are going well enough that he looks ahead and wonders if he shouldn't soon expand his herd to 40 or 45 sows.

Before long, he may put in a finishing barn too.

But for Henry Dueck, one step at a time is enough. His weaner pig enterprise is proving to be a sound addition to his grain farm. It has been a good way to expand the size of his operation without buying more land. It will be a good stepping off point for further expansion.—D.R.B. V

Henry Dueck displays one of the farrowing crates which he makes



Co-op Packing in Iowa

FRANK CRABB is manager of Farmbest, at Denison, Iowa, one of the very few successful co-operative meat packers in the United States. His recipe for success is, "Run it like a packing plant; don't obligate farmers to sell their hogs to the plant and don't obligate the plant to buy members' hogs."

Iowa has experienced a revolution in the packing industry; 13 single-storey plants have gone into business since 1957, while the big plants across the Mississippi River are closing. The result is there is now a packing plant every 50 miles and buyer competition for livestock is keener. Formerly only 20 per cent

of Iowa production was slaughtered in the state, now it is 75 per cent; Iowa is number one in hog and cattle slaughtering.

Crabb is an enthusiast for paying the farmer for what he actually produces, through grade and yield. Within 2 years he expects to be buying hogs based on ham yield. While the weight of hogs has increased by 10 lb., the lard content has dropped by 2 lb.; 220-lb. hogs now yield a 14-16-lb. loin. The better hogs are merchandised through "Iowa High I.Q." pork loin promotion. This is our competition.

Farmbest is rated as a small plant and has a daily hog kill capacity of

3,800. It runs on a 5-day schedule. Greater economy is claimed for killing the hogs in the area where they are raised. Such by-products as glands and sausage casing are saved and meat scraps are sold locally. A carbon dioxide chilling chamber is used for hog offal; even the liver, which is the thickest offal, is chilled to 45 degrees within 8 minutes of slaughtering.

Looking to the future, Crabb predicts these changes:

- Bacon will be made the day the hogs are killed.

- Irradiated meats will be sold to tropical countries, without need for refrigeration.

- Present plant labor force will be cut to 25 per cent and the chain store butcher will disappear.—P.L. V

Hogs

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TWEDDLE FARMS, Fergus, Ontario



Herdsman Jim Cramer started the steers on hay, then switched to all-grain ration

[Guide photos]

Urea Ration Gives Lowest Cost Gains in Feeding Tests

STEERS FED on a grain ration using urea as the protein source put on the cheapest gains in a test of 160 steers at the McCabe Beef Research Unit at Douglas, Man. The cost of gain for steers on a ration of 20% beet pulp was 1.1¢ a lb. higher than the cost with steers not getting beet pulp. Additional tests with wheat screenings proved refuse feed screenings at \$25 a ton are too expensive for beef.

These are three of the main conclusions of a 95-day feeding experiment carried out last summer to test various concentrate rations for finishing steers. Western steers weighing just over 700 lb. got hay during the pre-test period only. Then they went on a concentrate ration self-fed. The only roughage came from the straw bedding that the steers ate—it's estimated this was about 1 lb. a day per steer.

The basic ration was 600 lb. oats, 600 lb. barley, 600 lb. wheat, 100 lb. protein-vitamin-mineral supplement, and 100 lb. molasses. Basic protein source was soybean and linseed meal.

The results were as follows:

1. Using urea as the protein source lowered the cost of ration \$1 a ton and produced beef for 10¢ a lb. less.
2. Adding beet pulp to make up 20% of this ration raised the cost of feed 50¢ a ton and the cost of gain 1.1¢ a lb.
3. Antibiotics added to the ration raised the cost \$1 a ton and increased cost of gain 1.3¢ a lb.

4. Pelleting the ration after rolling it increased costs \$2 a ton but lowered the cost of gain 0.4¢ a lb.

5. Pelleting the ration before rolling it increased costs of gain 2¢ a lb. (This is contrary to previous University of Manitoba results.)

6. Wheat screenings as 30% of the ration dropped costs \$5 a ton but upped the cost of gain 1.9¢ a lb.

7. Wheat screenings as 60% of the ration lowered costs \$9.50 per ton but gains were 2.7¢ a lb. more expensive with this mixture.

Here are some other points worth noting:

- Most efficient gain was 6.42 lb. of feed per lb. gain with the basic ration in pelleted form.
- Highest daily gain was 3.25 lb. per day with basic ration rolled but not pelleted. Efficiency here was 6.81 lb. concentrate per lb. of gain.
- Adding the antibiotic proved to be a labor-saver in this case because the animals receiving it were the only lot that did not have to be treated for high-temperature or off-feed problems.
- Pelleting the grains whole did not show the advantage in this test that has been noted in previous experiments. This technique along with steam rolling will be tried in following trials.
- Bloat was not a problem at any time during the 95-day feeding period, despite the high grain content of the ration.
- The protein supplement in

every case provided for 30,000 units per head per day of vitamin A and also 10 mg. of stilbestrol per head per day.

Liver Probes

When steers arrived at the lot, a random test of livers showed the vitamin level to be low. Sixty animals were injected with 1,000,000 units of vitamin A at this time but no significant difference in feeding results showed up. This indicates all steers got enough vitamin A from the ration.

Another check on livers was done at the time of slaughter to determine if feeding rations affected the number of condemned livers.

Under normal grain finishing, packers tell us that about 50% of the livers in fat cattle have to be rejected because of abscesses. With an average 10 lb. liver worth \$2.50 to \$3 this is a key factor in animal value. It could mean ¼¢ to ½¢ a lb. extra returns to farmers if these livers were all sound. So far researchers are not sure what can be done to solve this problem with concentrate-fed steers. In this test, none of the rations proved it could significantly lower the number of condemned livers. The range of condemnations was from a low of 7 to a high of 15 in pens of 20 steers each.

Dr. Bill Roberts, Animal Science Department, University of Manitoba, and Stan Roberts of McCabe Grain Co. Ltd. supervised the test.—H.D. v

Keep Cow Rations Flexible for Winter

BE READY to change your beef feeding program if the winter becomes extremely severe. That's the way to maintain body condition in pregnant beef cows according to experiments carried out at CDA's Lethbridge Research Station.

In a recent feeding test to determine the amount of energy needed by beef cows, researchers found that the severity of the winter made a great difference in the condition of the cattle. Cows on high-energy ration gained weight during the mild winter of 1963-64, but lost 45 lb. by February 15 in the severe 1965 winter. Cows fed a medium energy ration maintained weight in the mild winter, but lost 75 lb. when the winter was rough.

The low-energy ration was not satisfactory for carrying cows through the winter in either case, and animals in this section of the test had to be removed and given special care. Recommended ration for pregnant beef cows is the medium energy ration which, in this case, contained 5 lb. alfalfa hay, 4 lb. oats, and ½-lb. protein supplement.

Even though cows on this ration lost weight during the severe winter, Drs. Hironaka and Peters who conducted the study feel it provides the best level of energy.

Here's why. They found beef cows

can lose weight during the winter but gain it back and raise calves with a good weaning weight, provided they have good summer pasture.

In their 1964 tests, cows on low-energy rations the previous winter soon gained weight and, by fall, weighed as much as the cattle on the high energy ration. There was little difference in birth or weaning weights of their calves. "The weaning weights of calves from cows on the low-energy ration tended to be a little lighter," says Dr. Hironaka, "but there were no significant differences." Based on pregnancy tests taken in the fall of 1964, no differences in conception rate showed up between the cows on high-energy rations and those on lower levels.

Beefmen should keep a watchful eye on the weather, and be ready to bolster cow rations if the need appears. On good pasture, beef cows can gain back weight that was lost during a rough winter. v

New Test Barn for Beef

A NEW PROGRAM to study ways of feeding beef cattle on corn silage has been announced by Shur-Gain Division of Canada Packers. A new steer finishing barn now under construction at Maple, Ont., will provide facilities for extensive studies of the best way to feed corn silage, grain and supplements and also the kind of management required with this system.

Because of high yield per acre, and low cost gains, corn silage has become one of the most important cattle feeding methods in Eastern Canada. v

How Much Protein in Starting Rations?

MANY CATTLE feeders feel that protein supplements should be fed at very low levels, if at all, during the period when calves are first being started on feed. There is a feeling that protein is a factor in causing loose droppings which often occur in cattle at the beginning of the feeding period. Many other factors, however, such as handling, change of environment and change of ration, all con-



"I want to surprise Pop—I heard him say the best time to sow your wild oats is when you're young."



Beef bulls are performance tested here during the winter months

tribute to this problem and adequate protein intake is essential to get the animal over these minor stresses and gaining satisfactorily.

Studies carried out by Ralston Purina Company with 250 head of steers point out the need for careful attention to protein in the starting ration. The following summary shows the results of their experiments in which different protein levels were compared for 3-week periods on starting rations containing 50 per cent roughage. A 3-week starting period was used to make weight changes more meaningful than 1- or 2-week periods.

Protein Level	8%	10%	12%	14%
Av. daily feed, lb.	15.8	17.4	16.6	16.2
Av. daily gain (21 days), lb.	2.37	2.86	2.90	2.71
Av. feed/100-lb. gain, lb.	665	611	574	602

Even though daily feed intake is a good indication of general well-being and good performance, it is not good enough to use as a basis for establishing feeding programs. Gains must be coupled with feed intake to determine the most efficient feeding programs. From these results comes this recommendation: Use 12 per cent protein starting rations for

cattle weighing over 400 lb.; use 14 per cent starting rations for lighter cattle. V

Oat Straw for Beef Cows

WHEN IT COMES to overwintering beef cattle, the straw and chaff from a crop of oats can be as valuable as the kernels.

In terms of TDN, oat straw is virtually equivalent to low quality hay, but it has less total protein. It can be used as the main roughage in an overwintering ration for beef cattle, or as a secondary roughage

to dilute a high-protein alfalfa hay ration.

If the chaff is included with the stems and leaves, feed value is even greater.

Here are two oat straw rations recommended by Manitoba Department of Agriculture for overwintering dry pregnant cows:

Ration I —

11 lb. of oat straw
7 lb. of alfalfa hay (1/10 bloom)

Ration II —

13 lb. of oat straw
4 lb. of rolled oats
1 lb. of linseed oil
16,000 I.U. vitamin A

V

ANNOUNCING

the

Bank of Montreal Canada Centennial Farm Leadership Awards*

50 awards of \$2,000 each — No age limit
No minimum educational requirements

We are searching for 50 Canadian farm citizens to contribute to the future development of rural Canada. These men and women will pursue travel and study plans of their choice as winners of the Bank of Montreal Canada Centennial Farm Leadership Awards. One of the winners could be you... or some member of your family.

Who is eligible?

Any Canadian Citizen engaged full time in farming, as an owner, a tenant, a relative of the owner or tenant, or as a hired employee on the farm can enter. There are no minimum educational requirements, and no age limit.

Applicants must be Canadian Citizens, or have applied for Citizenship under Section 11, sub-section 3 of the Canadian Citizenship Act.

How are candidates selected?

Winners will be chosen on their merit alone, based on:

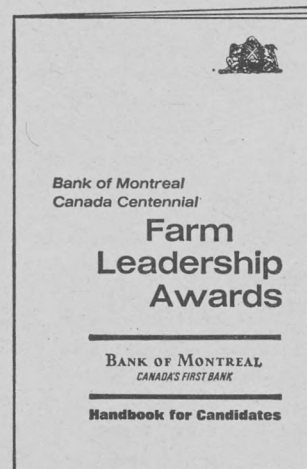
- Record in community activity.
- Value and feasibility of the project they plan to undertake.
- Recommendation of a sponsoring rural organization.

Half of the awards will go to farmers in Western Canada and half to farmers in the East. Selection of the candidates will be in the hands of two committees, each consisting of five agricultural authorities.

The onus of selection will rest entirely on the selection committee. The Bank will have no part whatever in the decisions.

This handbook contains complete details on the Award Plan, as well as application forms. Your application must be submitted not later than January 28, 1966. Pick up your handbook at any Bank of Montreal branch today!

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*A PROJECT TO COMMEMORATE CANADA'S CENTENNIAL AND THE BANK'S 150TH ANNIVERSARY IN 1967

Research Needed to Control Leukosis

Dr. B. R. Burmester, a noted U.S. authority on leukosis, calls for greater research and the selection of resistant strains



[Guide photo]

"WE NOW KNOW that there are two distinctly different groups of viruses which have been included under the general title of avian leukosis complex. Research into acute leukosis is currently in its infancy; Canada could and should support greater leukosis research," said Dr. B. R. Burmester of the United States Department of Agriculture, while addressing the Canadian Hatchery Federation convention. Leukosis condemnations in the U.S. have gone up dramatically; while leukosis does not reach its full potential until after broiler weights, it accounted for 8 million birds last year, he added. In laying flocks, losses are high and especially so in breeder flocks. Canadian losses, according to Dr. R. S. Gowe of the Canada Department of Agriculture, Animal Research Institute, would be comparable.

Control by eradication of diseases in the leukosis complex is at present out of the question. It is not known whether infection is transmitted through the air or whether insects harbor infection; there is no clue as to whether infection comes through the egg or whether it is present in the environment.

The best hope for control of leukosis will come, in Dr. Burmester's view, through the selection by breeders of resistant strains.

For the present, Burmester suggests that the following steps will be useful in minimizing losses:

- Rear only birds of one age group, on an all-in-all-out basis; young birds are susceptible to infection from the old.
- Maintain total cleanliness and sanitation.
- Leave poultry houses vacant

for a period after they have been disinfected.

- Use insecticides for a complete kill because parasites may be part of the cycle of infection.
- Keep visitors out.
- Use bulk feed and locate the filling points away from the poultry house door.—P.L. ✓

How to Get More Eggs from Meat-Type Birds

BROILER breeding stock has been selected for meat — but the economics of the broiler business also demand high egg production. These two characteristics are in conflict. How do you feed and manage broiler hens in order to get maximum egg production?

William Aho, extension poultryman at the University of Connecticut, put the possibilities for increased production in perspective when he addressed hatcherymen recently in Toronto. As few as six or eight extra eggs mean a 5% increase; this is a significant figure when one considers the narrow margins throughout all phases of the broiler industry.

He said that feeding practices for raising pullets can't improve total egg production, but delayed maturity increases the proportion of larger eggs. High-fiber feeds result in higher feed intake and closing feed hoppers periodically just encourages the birds to eat faster. Hens on lysine-deficient rations produced the same number of eggs as hens on normal rations, but fewer eggs were produced prior to 26 weeks of age

and more were produced subsequently. Restricted lighting can delay maturity by 14 days.

Once birds reach maturity they should gain moderately in weight in order to produce to their potential; severe feed restriction results in lower weight gains and lower production. Higher mortality is evident with fat birds. Periodic weighing of a representative number of birds is essential. Don't go overboard on grit and calcium, advised Aho, and pay strict attention to sanitation and temperature.—P.L. ✓

Canadian Leukosis Developments

LEUKOSIS was the main disease in chicken and fowl during the 12 months ending March 31, 1965. In the main areas of production, condemnation for chronic respiratory diseases declined while those for leukosis rose sharply. The disease contributed to an 89¢ drop in profit per hen in the most recent test conducted by the Poultry Division of the Canada Department of Agriculture. Mortality in the test was 3.5% higher than the previous test and two-thirds of the deaths were due to leukosis.

To aid in research of all poultry diseases, including avian leukosis, the Health of Animals Branch of the CDA has arranged for condemnation statistics of broiler chickens and adult fowl to be kept separately. This has been done in the U.S.; the Canadian move will enable better comparison of statistics. ✓

Special Report

Sequel to Pesticide Scare

There was no need to panic

NOW THAT THE results of the preliminary testing of beef cattle, dairy cattle and hogs purchased by the government during the Grand Forks pesticide scare (Country Guide, April 1965) have been released, four important facts emerge: (1) It is not necessary to condemn a whole herd because "actionable" quantities of aldrin or dieldrin have been found in the meat or milk. (2) Animals that have accidentally become contaminated do not have to be slaughtered. They can be cleaned up in 6 to 12 months. (3) Fat samples rather than blood samples should be used as a measure of contamination. (4) No known ration will speed the chemical elimination process.

When 19 "contaminated" beef steers and 10 heifers arrived at the Lethbridge Research Station last March they were weighed, tagged and blood sampled. Dr. Bob Hironaka reported at the Station's 6th Annual Livestock Feeding and Management Day. "Blood samples showed no dieldrin except in one steer, and that had only a trace. It was apparent that blood cannot be

used as a measure of dieldrin contamination."

Initial dieldrin levels were established by taking fat samples from near the tail heads of six heifers. Four of the six were found to have "actionable" levels of the chemical in their fat, but they were just barely actionable. That is to say, four showed a dieldrin level of over 0.1 part per million, which is the maximum tolerance allowed by the Food and Drug people. Wherever quantities above this level are found, Food and Drug takes action. Under today's methods of detection if a zero tolerance was enforced we would have little or no meat or milk that we could market.

As the steers were not carrying enough fat to sample, they were fed a finishing ration until June 17, and then samples were taken. Only 3 of 17 steers sampled had actionable levels. This was reduced still more with further feeding.

It was found that adding fat to an animal dilutes the level of pesticide stored in the tissues, and that as fat is consumed for energy it

gradually works the chemical residue out of the system. Because of this normal body process the level of chemical stored in the fat tends to remain about the same even when contaminated forage continues to be fed. No special rations have been found that will speed up this process.

"Dairy cattle get rid of stored residues in a different manner," Dr. Dave Clark told the assembled stockmen. "They excrete it in the butterfat of their milk. If you remove the cream from contaminated milk you get rid of most of the chemical."

The dairy cows received at the Lethbridge Station were a composite group from Grand Forks herds which were found to have actionable levels of dieldrin in their milk (0.564 p.p.m. in the butterfat). The level in the butterfat of the colostrum of six cows that freshened at the Station ranged from 0.37 to 1.30 p.p.m. But 4 months after they had calved, their butterfat levels had dropped to from 0.043 to 0.061 p.p.m. Newborn calves had body fat dieldrin levels similar to those in the butterfat of their dam's colostrum. This continued while they received their mother's milk, but residue dropped to non-actionable levels within 2 months' time when they were fed non-contaminated milk.

Two groups of cows were fed thyroprotein in their regular ration

to see if this would increase the fat content of the milk and thus speed up the dieldrin elimination rate. But these lost dieldrin no quicker than the group on the regular ration.

The amount of residue found in either the body fat or the butterfat will depend on the level of chemical in the feed and the length of time this feed is used. When actionable levels of chemical are found, a period of from 6 to 12 months will be needed to eliminate these residues from a cow in milk. These results were confirmed in the other three stations where Grand Forks animals were tested. A complete analysis of fat samples taken after the hogs and beef cattle were slaughtered will be available at a later date. Most of the dairy cattle have been returned to active duty in commercial herds.

Perhaps the biggest lesson learned from the Grand Forks affair is that there is no need to panic when actionable levels of chemical residue are found. All that is needed is to run a fat test on suspected herds and remove animals which show residues above allowable levels and feed them non-contaminated feed until the levels go down. In spite of all the publicity that ensued, at no time did the Grand Forks situation constitute a danger to public health.—C.V.F. ✓

Wild Oats Survive Stubble Burning

FARMERS WHO BURN stubble as a means of wild oats control are doing little harm to the wild oats and considerable harm to their land. The wild oats can be controlled much more effectively by such proven methods as delayed seeding, post-seeding cultivation, and herbicides. The stubble is needed for soil and moisture conservation.

In badly infested fields there are usually several bushels of wild oats per acre buried in the ground that are not affected by the fire, explains Mr. W. Lobay, supervisor of soils and weed control, Alberta Department of Agriculture. Even if some seeds were destroyed on the surface the wild oats would not be eliminated from the field.

In a trial in which the ground had been sprayed with oil and distillate before it was burned, wild oats and other weed seeds were only very slightly affected by fire. Under these conditions the heat is much greater and more likely to burn the seeds than it would be in the case of ordinary stubble burning. Lobay explains that since most wild oats that are not buried are lying on the surface and the heat of the fire rises away from the surface, at most the fire would only singe the awns without doing any real harm to the seed.

The loss of the straw would be much more important than any damage done to the wild oat infestation. A good straw mulch will increase the intake of water from a prolonged rain or rain of high intensity as well as reducing loss by evaporation after the rain. Properly incorporated straw is also an excellent means of preventing or controlling soil erosion. Furthermore, a good trash cover returns important organic matter to the soil which improves soil structure and supplies essential plant food elements.

If weeds are a problem, spraying with herbicides is a much more effective control. Wild oats can be controlled by the proper use of Avadex and Carbyne. Avadex is a pre-emergent treatment which is applied to the soil either before or just after seeding, depending upon the crop. Carbyne is a post-emergent treatment which is applied at very specific stages in the growth of the grain.

A recent trial, reported by C. H. Anderson, of the Dominion Experimental Farm at Swift Current, Sask., shows that fall spraying with herbicides may be the answer for fall weed control. In the trial a small stubble field was given three treatments. One-third of it was sprayed in mid-October with 2,4-D ester at 6 ounces of acid per acre. The middle third was left untouched as a check and the remainder cultivated with large sweeps, followed by a rodweeder. In spite of the fact that

weed growth at the time of treatment was so light it seemed a waste of time and money to control the weeds, by spring the difference in weed growth was outstanding.

Only a few scattered plants of winter annual stinkweed and flaxweed were found on the cultivated field, in places where the cultivator had not lapped over the previous round. The sprayed plot was completely free of weed growth. The untreated check plot carried a 50% cover of healthy weeds.

Fall spraying has also proven to be an effective way of combating deep-rooted perennial weeds such as thistles, bindweed, leafy spurge and dog mustard. Manitoba weed specialists suggest spraying the stubble with 2,4-D amine at 16 ounces per acre as soon as the crop is off. Early spraying is important for it allows a chemical to penetrate into the root system while the plants are still alive. The specialists also suggest a cultivation 2 weeks after spraying to control any wild oat plants that may have germinated.

Which Fertilizer Best for Corn?

"THE CHEAPEST priced nitrogen fertilizer," answers W. T. Ewen, professor of soil science at the Ontario Agricultural College. But, when ammonium nitrate costs \$95 per ton and anhydrous ammonia costs \$165 per ton, which is the

cheapest? "This is a simple arithmetic problem," Prof. Ewen says. "There are 660 pounds of nitrogen in a ton of ammonium nitrate. Divide 660 into \$95, that's about 14 cents per pound of nitrogen. One ton of anhydrous ammonia contains 1,650 pounds of nitrogen. This works out to 10 cents per pound — so I would use anhydrous ammonia."

How do these two fertilizers react with the soil? The ammonia in both forms a stable compound when it attaches to the clay and humus in the soil. While the nitrate component of the ammonium nitrate is free for immediate use, soil bacteria must change ammonia to a nitrate before plants can use it. Ammonia does not leach out of the soil, but nitrates do escape from the soil by leaching. Since anhydrous ammonia is only composed of ammonia units, it is not so readily available to plants as ammonium nitrate is. It is, therefore, best to apply anhydrous ammonia 5 to 6 inches deep on clay and somewhat deeper on sands.

These are not the only recommended fertilizers, however. Any form of nitrogen is good, safe, and satisfactory if properly applied. It is not necessary to buy expensive special equipment, either. Ammonium nitrate or urea can be applied by using a grain drill before planting, or by blocking off the unused drills and sowing the fertilizer down through one or two drills between each row. A corn planter with fertilizer attachments is also available.

Nutrients should be applied as soon as the corn is up. Of course, if the number of plants per acre can be estimated, preplanting is wise too.

If a farmer has not had a soil test recently, his closest source of information would probably be his agricultural representative. Where manure has been applied, and a good stand of alfalfa or clover has been plowed down, he will not need any extra nitrogen. Generally, 100 pounds of actual nitrogen per acre will be needed where corn follows stubble or corn. When either manure or clover have been plowed in, 50 to 60 pounds of nitrogen per acre should be satisfactory.

These are only estimates, however. Soil testing, Prof. Ewen emphasizes, is the best bet. It is based on many years of research on farmers' fields.

Moisture Tester for Seed Crops

GRASS SEED growers who have been unable to find a reliable method of determining seed quality for harvest timing may soon be using an inexpensive, portable moisture tester developed by agricultural engineers at the Oregon State University.

J. E. Harmon, agricultural engineer at the university, explains that grass seed producers wait too long to harvest seed when they judge harvest time by calendar or the appearance of the plant. Seeds are usually past maturity and deteriorating in quality before they are harvested. This reduces germination and increases shattering.

The only accurate means of determining the best harvest date is moisture testing. In tests using moisture metering devices, earlier harvests have doubled the yield of pure live

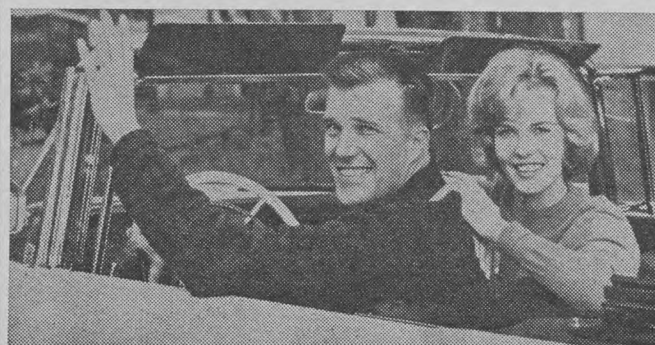
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seed. There is generally a difference of 2 weeks between optimum harvest time for maximum seed production, and the time seed crops are normally harvested. The tester which has been developed consists of a container with screens on the top and bottom, and an adapter, and stand. It is used with a small set of scales and a thermometer. Heat is supplied from the exhaust of a truck.

The moisture tester has been used, and the optimum harvest moisture determined, for the following crops: crimson clover, 35 per cent; alta fescue, 43 per cent; orchard grass, 44 per cent; bluegrass, 25 per cent; and sub-clover, 22 per cent. ✓

Gaines Use Limited on Prairies

WHEAT GROWERS in winter wheat areas should not go all out for the newly licensed variety Gaines. This crop was licensed in Canada for very special uses and it is only adaptable to certain areas.

Gaines is a semi-dwarf type, soft, white, winter wheat which has become popular in the Pacific Northwest where farmers have obtained dryland yields of over 100 bu. per acre with heavy fertilization. According to Dr. M. N. Grant, of the Canada Department of Agriculture Research Station at Lethbridge, Alta., Gaines is a variety with a narrow adaptation. It is a high-yielding variety, but has never performed as well east of the Continental Divide in Canada or the United States as it does in the Pacific Northwest.

Its advantages are high yield potential, short, strong straw, and resistance to stinking smut or bunt. These are the main requirements for winter wheat in British Columbia, and this is the main reason Gaines was licensed for use in Canada, Dr. Grant says. Quality is not as important a factor there because it will be used primarily for feed.

Its relatively low winter hardiness, and the problem of a market are disadvantages for Gaines wheat in Alberta, says Dr. Grant. In years when winterkilling occurs, Gaines will be damaged more than Winalta or Kharkov 22MC. It can be sold as a livestock feed or through regular channels. Sold as a livestock feed it would be competing with barley, says Dr. Grant, and would therefore have to yield very well. Sold through regular market channels, it will have to grade No. 6 or lower, according to the Board of Grain Commissioners.

It is a soft wheat ordinarily used for pastry flour. Since it is hard to mill, milling companies have so far not shown much interest in contracting for it.

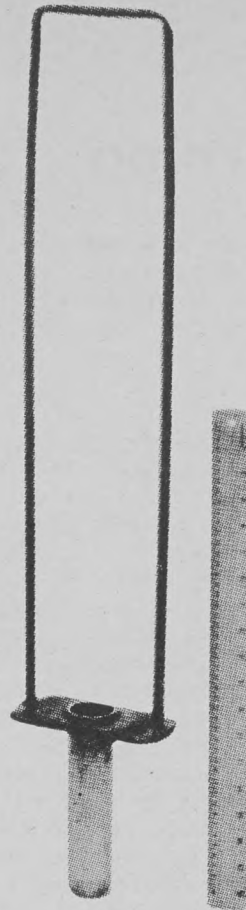
Gaines was licensed because it fills a need in British Columbia. On the basis of its performance at Lethbridge, it will not likely replace much of the Alberta acreage sown to more hardy varieties such as Winalta and Kharkov 22MC. There is a greater risk of loss for the person who does seed it. ✓

Sampler Simplifies Soil Testing

IF YOU HAVE put off soil testing because it looks like a chore, you may be interested in a simplified step-on soil tester developed by J. A. Toogood, Soil Sciences Department, University of Alberta.

In an effort to avoid the tedious job of sampling with a shovel, several soil coring tubes have been introduced in recent years, but these have a small diameter and tend to compress the surface soil rather than cut through it. The new sampler avoids this problem and is also simple and easy to operate.

This soil sampler takes a cylindrical section of soil. The sample includes equal volumes of soil from each inch of depth. No dry surface soil is lost in taking the sample. The size of the core in the samplers shown is 1½" x 6" but other sizes can be used. The sampler is pushed into the soil by stepping on the plate and pulled out with the handle. The plate accurately controls the depth of sampling. The core is cut by a stainless steel tip, ¼" less in inside diameter than the brass tube so the core of soil slides freely up the sampler tube and stays there when the sampler is taken out of the soil. If a sample is required from the 6 to 12 inch depth a 1 inch sampling tube, 12 inches long can be used to



take a sample from the bottom of the first sample hole.

The length of the handle can be made to fit the user. Full scale drawings are available on request. ✓

Test Oil from Single Rapeseed

A METHOD THAT enables research workers to analyze a sample of oil from a single rapeseed has opened the door to an accelerated breeding program aimed at improving quality and yield.

Because the oil composition in rapeseed is controlled by the developing embryo the oil quality in each seed on a plant can be different from other seeds, according to Dr. R. K. Downey of the CDA's research station at Saskatoon, Sask. With the refined techniques, researchers can remove part of the seed, without destroying the seed's ability to germinate. The oil in the sample is extracted for analysis and if it has desirable characteristics the seed can then be saved for use in a breeding program.

The rapeseed research program

has already resulted in a new type of rapeseed which produces oil very similar to olive oil. However, seed of this new variety will not be available until 1967 at the earliest.

The rapeseed breeding program at Saskatoon has four main aims:

- ✓ To breed new varieties which produce more seed per acre, contain more oil per pound of seed, and more protein in the oilcake meal.
- ✓ To seek earlier and more uniformly maturing varieties.
- ✓ To change rapeseed oil chemically so that it will be more versatile and valuable.
- ✓ To eliminate the so-called toxic factors in rapeseed meal.

Dr. Downey is enthusiastic about the future prospects for rapeseed: "Prospects for overall improvement are great. Significant increases in seed and oil yields have been made in recent years and new oil composition types have been selected. New processing methods have improved the quality of rapeseed meal and recent research indicates that the meal may be improved further through plant breeding.

"Rapid advances can be expected as the new analytical and chemical techniques are applied to the extensive variation found within the rape species and their close relatives."

Canada is the world's leading exporter of rapeseed, exporting more rapeseed than all other countries combined. Preliminary forecasts for the 1965 crop indicate a total production of 28 million bu. which is more than double the 1964 yield. ✓

Trees Hold Moisture

IT IS THE TREES that make the supply of soil moisture in the Peace River area of northern Alberta and British Columbia more stable than it is on the bare plains farther south. This moisture is particularly important in this region because it makes up for the shallower depth and lower organic content of the soil.

The trees do not attract more rainfall, explains Dr. A. C. Carder of the CDA Research Station at Beaverlodge, Alta. In fact, there is little difference in the rainfall between the Peace River districts and the bare plains areas to the south. However, the trees reduce the evaporation loss by protecting the land from the wind.

Experiments have shown that trees can reduce the rate of evaporation by as much as 35%. This means a saving of about 5 inches of water which is nearly half the amount needed for a 40-bushel wheat crop.

If you clear your land completely you are in danger of losing this moisture benefit, warns Dr. Carder. Even if you plan to use shelterbelts to protect your land, this will not be as effective as natural bushland. Dr. Carder says strips of woodland, 20 rods wide and spaced half a mile apart, are more effective than six shelterbelts planted over the same distance.

"It is most unwise to clear trees from swales, slough margins and water runs where crops can seldom be grown, but it is the height of folly to clear mile long tracks of land, thus affording a clear sweep for the wind," he says. ✓

Sulphur Increases Winter Wheat Yield

USING A sulphur-bearing nitrogen fertilizer may be one way to increase the yield of stubble-mulched winter wheat.

In recent tests, soil scientists of the United States Department of Agricultural Research Service found that the bacteria which decompose straw use up the supply of sulphur in the soil.

In the trials, wheat grown in a soil free of straw produced more vegetation than wheat grown in a soil-straw mixture. Adding nitrogen fertilizer increased the yield from the soil-straw mixture but it still did not equal that from plain soil. When sulphur was added to the nitrogen, plants grown in the soil-straw mixture yielded as much as the check plants in plain soil, indicating that the added sulphur replaced the available soil sulphur which was being used by the bacteria decomposing the straw.

Results of this study also explain why legumes respond to sulphur fertilization. By fixing atmospheric nitrogen in the soil, legumes upset the natural nitrogen-sulphur ratio. Adding sulphur restores this balance. ✓



What About Futures for Beef Farmers?

"FUTURES FOR beef cattle would help stabilize prices, and tie them more closely to U.S. prices," says Jim Clarke, president of the Winnipeg Grain Exchange. "And equally important, large producers could use futures to remove the risk of sudden price drops."

The picture of a feedlot owner buying cattle and selling a futures contract on the same day is a little surprising to some of us. That way he determines the selling price the day the steers go on feed. That means he establishes his feeding margin down to the last cent and can set out to do the most efficient feeding job possible.

Of course the gambler could still operate as he has always done in the past — feeding for profits on the gain and also speculating on market price changes to give him an extra bonus. But many of our beef feeders have indicated they want to shift market risks to someone else and concentrate completely on feeding.

Jim Clarke reports some Canadian farmers are now using the Chicago futures market to hedge their risks on beef. Several of them asked the Winnipeg Grain Exchange about initiating a similar Canadian service. Clarke is part of a committee that is studying the beef market to decide first if a beef futures market would be desirable in Canada and also to investigate the possibilities of futures for other produce like corn, hogs, poultry, or eggs.

What is a future?

Many people are not familiar with the details of trading futures. The best simple explanation I can think of is "a future is a contract to deliver certain items, in this case cattle, for a set price, at a future date."

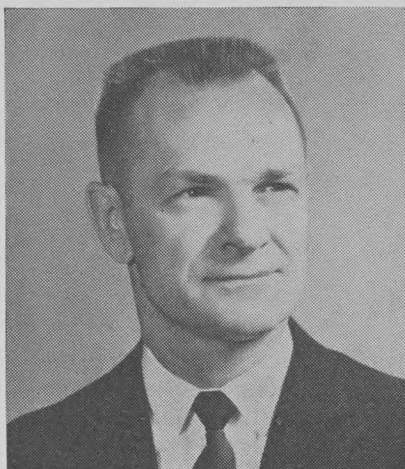
Last year futures trading for beef was introduced on the Chicago market. Reports indicate it has worked satisfactorily but no one can point to any big benefits yet.

Clarke states that with larger feeding operations, there is a definite need for some way to hedge the risk involved with price changes. He says we must find out if futures provide the best way to do it.

"This seems like a forward step in developing a sound and efficient livestock industry," states Clarke. "And it should help free our feeders to concentrate on doing the job they do best, that is, feeding cattle."

Do we have the conditions necessary for a futures market in beef? Jim Clarke feels we may have, and he points to these features as the most important ones to consider:

1. Sufficient volume of beef to keep the market alive every day.
2. Enough beef trading so that one individual can buy and sell without significantly affecting price.
3. Prices that reflect supply and demand changes brought about by weather and seasonal trends.



[Winnipeg Grain Exchange photo]
Winnipeg Grain Exchange president Jim Clarke suggested beef futures

4. No monopoly on either the buying or selling end.
5. Market information that is complete and available daily.
6. Uniform grading standards.

What about marketing boards?

If we consider a futures market for beef, then why not for hogs? The marketing boards in Ontario and Manitoba have taken on the role of one-desk selling. But there is still room for a futures market to complement the board's operations, in Clarke's view. The hog marketing boards do not share or transfer any of the risk in raising hogs, and therefore there may be a place for futures trading to work along with them.

It's up to farmers and financial firms to decide if futures are needed in farm marketing. If no one needs a service like futures trading, then we won't have it.

But in the current search for ways to reduce the risks in farm production the trading of meat and produce futures on Winnipeg Grain Exchange is getting top consideration.—H.D. V

Figure Beef Margins Before Buying

A BEEFMAN who knows the meaning of price margin and feeding margin will be able to roughly estimate his profit potential, before he buys feeder cattle, according to livestock specialists with Manitoba Department of Agriculture.

Price margin is the difference between the purchase price of feeders and the selling price per pound at the end of the feeding period.

Feeding margin is the difference between the costs of each pound of gain and its final selling price. Gain costs include feed, depreciation on facilities, labor, death risks and veterinary charges.

To assure a favorable price margin, the feedlot operator must be a shrewd buyer of feeders. To maintain a favorable feeding margin

he must be wise in the most efficient ways of feeding cattle.

Let's take an example of price margins. If a 700-pound yearling is bought at 20 cents per pound and sold at the end of the feeding period at 24 cents per pound, the price margin is 4 cents in favor of the feeder.

The feeding margin is usually expressed on a per pound basis. For example, if the total cost of each pound of gain of an animal is 20 cents and the selling price of the animal is 24 cents per pound, there is a favorable feeding margin of 4 cents per pound of gain.

Favorable margins in both cases will mean profit, while negative margins in both cases will mean losses. If one or the other is negative, it is still possible in some cases to make a profit on the operation.

With a negative price margin facing a feeder, he must manage his enterprise as efficiently as possible to make enough profit on the feeding margin to come out in the black.

Here's an example of how profit can be made in spite of a negative price margin. Consider a 400-pound calf purchased at 28 cents per pound and sold at 25 cents per pound. With this negative price margin of 3 cents there is a theoretical loss of \$12. However, if the animal sold at 800 pounds and the 400-pound gain cost 20 cents, the positive feed margin of 5 cents per pound would produce a profit of \$20 on the gain in weight. Overall profit on the steer would thus be \$8.

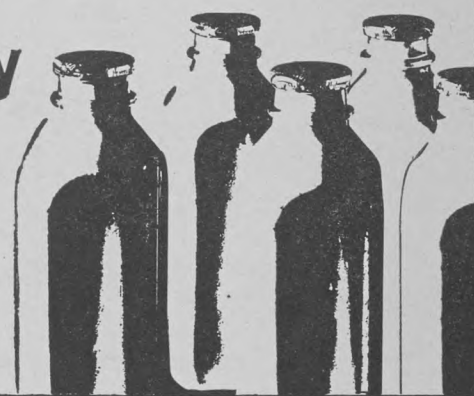
Operators can afford to work on a negative price margin if they are buying calves, providing the general cattle prices are high; since the cost of gain on calves is less than for yearlings. If the feedlot is set up for yearlings with an average cost of gain around 23 cents per pound, the operator has little room to maneuver against a negative price margin.

With steer prices for next spring expected to be close to those we had this year, good feeders are taking out their pencil and notebook before they take out their wallets. V

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Plastic Covers Force Strawberries

A NEW METHOD of forcing strawberry production, developed at Efford experimental horticulture station in Hampshire, England, shows promising results. Flat cloches, made by laying polythene strips over and along the rows, allow growing plants to force the cover up from the ground. Cloches remain in place until the fruit is picked; they are removed by folding back and replaced after picking.

This is the method: thin polythene film is anchored at each side by being wire-stapled at each edge to, and then rolled around, 1-inch square battens of parana pine screwed together in continuous lengths.

In the trials, 4 strawberry rows 12 inches apart were covered with the polythene. Experience suggested that a bed of 6 rows 12 inches apart with 18 inches between the 2 center rows would make for easier picking. Polythene strips were 130 feet long and 8 feet wide but they should have been narrower.

Cloches were held down at each side by 20-in. pegs of ¼-in. steel with tops bent into shepherd's crooks to fit over the battens. They were driven in at 6- to 8-foot intervals.

The experiments showed that the plastic covers retained heat and moisture and so forced the strawberries ahead. As the leaves push against the plastic, the batten on one side of the rows could be unwound one turn. This loosened the cover and allowed the plants to support the plastic and so make their own cover.

Researchers found no evidence of botrytis among the plants. They attributed this to the fact that the atmosphere beneath the plastic cover was too warm and steamy for mold to develop. They recommended spraying for weeds the previous autumn, for aphids immediately before the rows were covered. However, on the basis of their experience,

they saw no need to spray against mildew or botrytis and, since there was no loss of moisture from the soil, it was unnecessary to irrigate.

While the technique is promising, there are some limitations. It could not be used where wind was a problem. Completely level fields were also unsuitable because rainwater collected on top of the cloches and crushed the plants beneath, and, on stony fields, it was difficult to moor the battens close enough to the ground. Gaps in the covering allowed cold air to get at the growing plants or wind to pull at the cloche itself. ✓

Herbicide Suits Carrots, Potatoes

A NEW FORM of linuron will control weeds in carrot and potato crops. When used as a spray, this wettable powder controls such weeds as barnyard grass, crabgrass, foxtail, lamb's quarters, pigweed, purslane, ragweed and smartweed. In its favor: it is non-flammable, non-volatile, non-corrosive and low in toxicity when used according to manufacturer's directions.

Carrots may be treated 4 days after planting, when the plants are 3 to 6 inches tall or prior or following the application of Stoddart solvent.

Potatoes need only one application — after planting but before the crop emerges. In "hilled" plants the herbicide is applied after the final hilling operation. ✓

New Approach to Apple Growing

PLANT APPLE TREES 12 to 15 feet apart, cut off any branch that becomes too long or too high and then watch for bigger yields. This advice comes from Dr. A. D. Crowe, of the Canada Department of Agriculture's research station at Kentville, N.S. Annual pruning then becomes only a matter of removing one to three of the longest branches.

This system, according to Dr. Crowe, encourages renewal of fruit-bearing wood and so promotes apple growth on all branches. It's a simple, quick and effective method, he says, and means that neither thinning out nor heading back is necessary. But, he warns, don't cut off smaller shoots or branches because new branches develop from these shoots.

Dr. Crowe's system not only speeds and simplifies pruning. It also allows for closer planting of trees for the most effective use of land and machinery. By replacing branches as he suggests, trees remain young and

Best Bees in 4-Pound Packs

A 4-POUND PACKAGE of bees with two queens is the best way to buy packaged bees according to Dr. J. C. L'Arrivee, apiculturist at the Canada Department of Agriculture Experimental Farm at Brandon. Dr. L'Arrivee compared the returns from the standard 2-lb. package and from divided 3, 4, and 5-lb. packages in a field study in 1964.

Net returns for the various packages were: \$8.28 per colony for the 2-lb. package; \$7.61 per colony for the divided 3-lb. package; \$9.19 per colony for the divided 4-lb. package; and \$10.16 per colony for the divided 5-lb. package. While yield differences were insignificant he found the 4-lb. package the most economic size in terms of trucking and net returns.

In the same area, Dr. L'Arrivee points out that recent surveys of package bees show that from 30 to 75 per cent of the packages may be infected with nosema disease. Because even low levels of infection in these packages can have an effect on profits, he recommends that beekeepers treat all packaged bees with fumagillin when they are placed in the hive. This can be particularly important during a late, cold spring. ✓

Certified Strawberry Stock Now Available

WHEN YOU MAKE a new strawberry planting use "Certified Stock" of the Ontario Strawberry Plant Certification Program say officials of the Ontario Department of Agriculture.

They point out that such plants are produced under regulations de-

signed primarily to control viruses. They also pass health standards for nematodes, red stele, cyclamen mites, verticillium wilt and other pests.

While supplies of some varieties are limited, certified stock of the following varieties are available: Redcoat, Earlidawn, Catskill, Cavalier, Empire, Erie, Grenadier, Guardsman, Pocahontas, Sparkle and Surecrop. For growers' protection, an official red tag issued by the Vineland Horticultural Experiment Station must be attached to each package as a guarantee that the plants have been certified.

For information regarding Ontario Certified Stock strawberry plants, contact the Vineland Horticultural Experiment Station or the Farm Products Inspection Service, Ontario Department of Agriculture, Parliament Buildings, Toronto, Ont. ✓

Weed Control for Tomato Plants

RECENT FIELD trials by Dr. W. J. Saidak, of CDA's research station at Harrow, Ont., indicate that herbicides will eliminate the need for hand hoeing of tomatoes grown on sandy and clay loam soils. Of the herbicides tested, Dr. Saidak found diphenamid to be the most effective.

A single application of this chemical to freshly cultivated soil shortly after the tomatoes were transplanted controlled important annual weeds until harvesting was completed. There was no sign of injury to the plants although twice as much as recommended rates were used.

For economy, Dr. Saidak recommends band applications centered on the tomato row rather than treatment of the entire field to cut costs and reduce residue hazards. By using band applications and carefully calibrating sprayers, tomato growers will get more efficient production with little risk to crops that follow in the rotations, according to Dr. Saidak. ✓

Prairie Rose

"ASSINIBOINE" is the name of a new rose developed at the CDA Brandon experimental farm by H. H. Marshall. It has strong red flowers with yellow centers. Flowers which form in clusters appear in July and occasionally during the summer. Blooms are moderately large with 10 to 12 petals. Marshall developed the variety by crossing a scarlet floribunda rose with the common prairie wild rose.

A hardy shrub, Assiniboine blooms well after severe pruning or light winter injury. New stems bear flower clusters the first summer; however, old stems lose vigor and should be removed after the second summer.

Assiniboine is available from prairie nurseries. ✓



"Well, just give me one good reason why a pink tractor won't run as well as any other!"



Two new 30 ft. by 60 ft. silos are to store corn, haylage, and oat silage [Guide photos]

How One Man Tackles The Roughage Question

HEINRICH HOLTSMANN has not decided whether corn, haylage, hay, or oat silage will be the backbone of his roughage program. So he built his feeding system to handle them all.

"To get the most milk for the least cost," he explained, "we've got to feed our 65 milk cows top roughage all year round." To do this Holtmann, doubled his feed storage space by building two new silos last summer. His feeding equipment is flexible though so it doesn't tie him to any one forage crop.

Here's how the new feeding unit shapes up on his 800-acre farm at Rosser, Man.

The two new 30-ft. by 60-ft. upright stave silos hold 100 acres of haylage, 60 acres of oat silage, and 50 acres of corn. Previously, these crops were stored in a 30-ft. by 70-ft. trench silo where the cows are self-fed.

Holtmann is still going to continue using the trench silo. But he hopes to reduce both waste and labor by feeding from the uprights all year round. The auger system bringing silage from the two uprights passes through the cow barn, so he can feed silage both in the barn and in the loafing yard. A section of the barn auger simply opens to drop

silage into a cart for indoor feeding when the weather is rough. Dry hay is stored in a shed which borders on the yard.

When it comes to choosing roughages — corn, haylage, oat silage or hay — Heinrich admits that he's still searching for the right forage crop program for his farm. He wants to find the combination that gives him more milk per acre with the least cost in labor and machinery.

Here are some of his thoughts at this point:

—Pasture is out for our milk cows. We can't afford to pasture land that's worth \$100 an acre. There's too much waste and cows are on poor grass much of the time.

—We plan to put our cows in dry lot, harvest forage at peak quality, and feed silage all year round. My two boys and the hired man can look after the herd of 170 Holsteins.

—Cows like some variety in their ration, especially when you feed heavily the way we do. To keep cows eating, I'd like to have both corn and haylage available.

—I need a 3-month weather forecast to help me decide how much corn and oats to plant. For a warm summer I'd up the corn acreage, but

if it's going to be cool, I'd boost the oats.

—If we can grow 60 bu. of corn to the acre in Manitoba, then I'll grow it. The last 2 years have not been good for corn, it's been too cool in summer and too wet in the fall. We're not quitting corn but it's got to prove itself consistently better than haylage to justify our extra machinery costs.

—If we can't rely on warm summers in Manitoba, then haylage is the answer. I know of some cornbelt farmers who are switching to haylage because the early summer crop gives them an extra turn on the silo. They can fill it and feed out twice in the same year.

—We are fairly sure of getting two crops of alfalfa so I'm going to stick with haylage for a while. But we need to have some flexibility in our forage system, so that's why I like oats.

—I believe there's a lot of milk in oat silage. In a bad season, it keeps us from buying hay, too. We can pull into a grain field and make silage if the hay crop turns out poorly.

—We want to grow all the feed for our milk cows, except protein supplement and minerals. We needed the extra storage space to do this, so we put up the two silos. They'll help cut down some of the waste and extra labor that we had with the trench.

—An air-tight silo? We wanted one until I took a trip to see several in the States and then found the price was going to increase 44% if we imported a U.S. silo. It's like this, we'd like to drive a Cadillac but a Chev or Ford will get us there just the same. This year we placed a 3-ft. sheet of polyethylene against the silo walls, inside, over the doors. It cuts down on the spoilage that we usually get at this point.—H.D. ✓

Too Much Barley Causes Problems

THE ECONOMIC value of straight barley ration for milking cows is doubtful and the ration itself may be disastrous for the cow, according to Dr. G. R. Dickson at Wye Agricultural College, Kent, England.

The main argument against "barley-milk" is that at least a third of barley-fattened steers slaughtered at 12 to 15 months suffered from serious liver and kidney damage. Research on ad lib barley-feeding to dairy cattle has shown up to 60 per cent feed waste and there have also been cases of infertility, bloat, kidney and liver diseases and a high rate of calf mortality.

On the other hand, there is no wisdom in feeding just grass to dairy cattle, since this only creates a low-output cow. "I feel that concentrates should be used with grass in a properly balanced diet between the two," says Dr. Dickson, "and this is the only way to produce an efficient milking unit." ✓

Dairy

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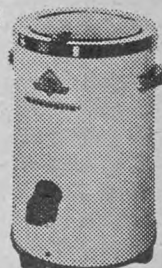
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Both milk cows and dry cows eat haylage from the trench silo at different times of the day

Problem—20-Year Buildings with a 10-Year Life!

"FARMERS WHO raise livestock are caught in the squeeze between buildings that last 20 years and production methods that last less than 10. We have several cases where a 10-year-old livestock barn is completely out of date," states Bruce MacKenzie, extension agricultural engineer at Purdue University.

While attending Manitoba Farm Progress Days, Mr. MacKenzie told the Guide that the search for a short-life building has not been successful. To overcome the gap between technology changes and building changes, farmers must plan both utility and flexibility into their new buildings. Here are some of the points that MacKenzie made for farmers who are planning to build:

- Think about how your building may be adapted to make full use of the technical advances of the next few years. Example: The same building shell can often be used with different feeding and manure-handling systems.
- Don't be afraid to plan for a change in your mind. You might not even consider automatic feeding today, but in 2 years or more, with less help and less time, you may want to go right into it. By building to make this possible, you could save yourself precious dollars.
- Beware! Don't compromise so much for future use of the building

that you put up one that is not competitive today.

- Plan your building to pay off construction costs in 10 years. That



Bruce MacKenzie

way you'll be in a better position to consider renovating or rebuilding as the techniques change.

- Clear-span buildings are the best hedge against future changes. This type is not usually limited by headroom, has no posts to interfere with plans, and you can alter the drainage and manure system without affecting the rest of the building.
- Storage buildings are the easiest to convert from one use to another. Example: Machinery storage can convert to grain storage or ear grain

storage can convert to shelled grain, and a combination feed and machinery storage can house fertilizer for part of the year. These warehousing materials can be completely interchangeable with a little extra planning.

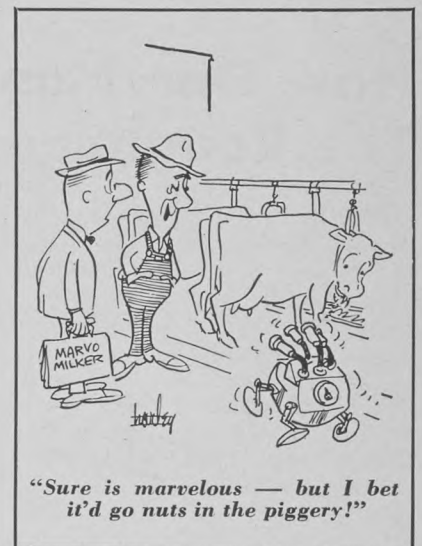
- Cutting corners on building materials is more dangerous today because each feature is important in controlling the animals' environment. We used to let the pigs go outside to cool off, or pile up straw to keep warm. Now, with confinement, the insulation and ventilation in the building must be right up to scratch to provide ideal growing conditions for the same hog.

- The key to building is freedom of design for feed handling, manure handling, animal handling, and animal health. In an old barn these freedoms can be seriously restricted. To make a decision on an older building, a farmer should first figure the number of years he is planning for. Then calculate all the building changes and upkeep costs that will occur during that period. Then compare both the costs and benefits with the alternative of a new structure with complete freedom of design.

- Don't fall into the trap of renovating an old stock barn to do half a job, and then step out to build a brand new machinery shed. The extra returns from having ideal conditions for your stock is often much greater than that for machinery. It could be a case of comparing the cost of an extra 2 hours once a year to put the combine in the barn with an extra half hour's work in the livestock barn every day. Too often,

MacKenzie says, we are hypnotized by the use of our old barns by livestock when they work much better as storage. It's often more profitable to put up a brand new stock barn, with controlled environment and also to locate it some distance from the house to prevent odor problems.

- Evaluate yourself before you build. How good a manager are you? Do you have enough of the extra management skills to operate a confinement barn where you completely control the environment and welfare of each animal? This may be the hardest decision of all to make, but it's important. MacKenzie points to farmers who have built beyond their management and states they are not getting enough returns from their unit because the man doesn't measure up to the building. —H.D.



"Sure is marvelous — but I bet it'd go nuts in the piggery!"

Hillside Feeder Saves Power and Labor

THIS 180-FOOT feeder built by Darius Stahl and his three sons at the CCC Colony Ranch west of Cayley, Alta., uses the slope and height of a side hill to save power

and labor. Green feed is dumped from forage harvester-loaded dump carts into 10 openings located in the roof of the feeder. A gentle slope on the feeder's dirt floor carries the feed forward by gravity to the manger as the animals take it from the front. The manger and feeding ramp is floored with concrete.

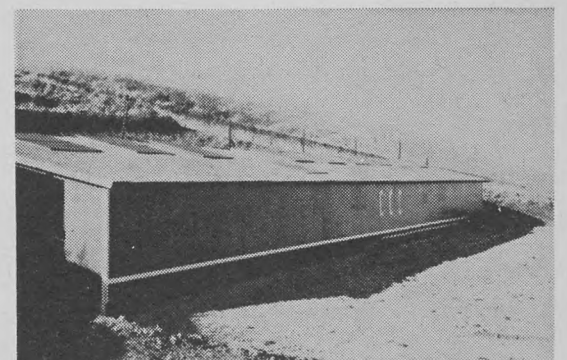
Built at a cost of \$2,000, the feeder has plywood sides and a shingled roof. At the core of the structure is an 18-foot-high retaining wall of treated poles and planks which is built flush against the bank. This is braced by cables anchored to posts located farther up the bank.

The feeder has a capacity of about 400 tons of a chopped oat green feed mixture. It can be filled by three men in 2 days time and will feed 300 calves. The structure was made in sections so that different rations can be fed.

The roadway traveled by equipment in filling the feeder has been cut deeply into the bank above the feeder, about halfway up the slope. It is now planned to locate a 2,000-



Left to right: Darius Stahl Jr., and his brother Sam on top of feeder



Front view of feeder

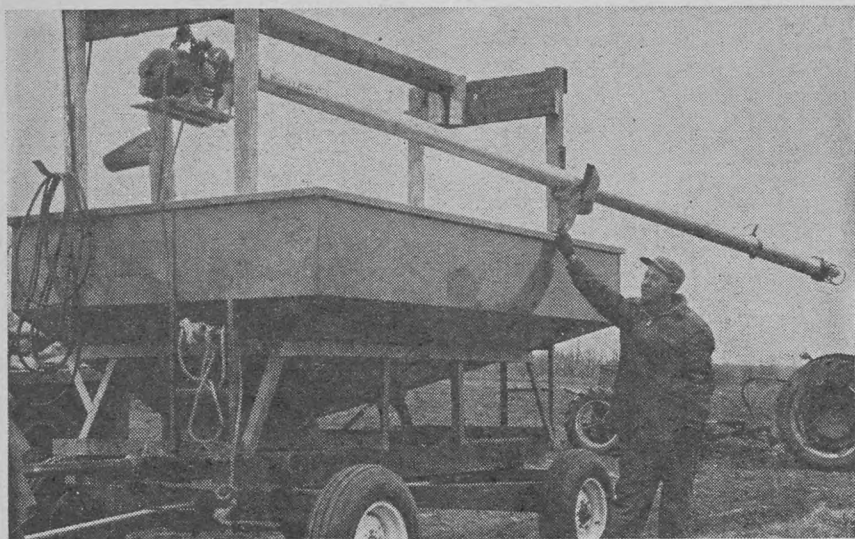
bushel grain tank here. The tank would be filled by gravity flow from the top of the hill and unloaded into the feed mangers below in the same manner. By taking advantage of the

natural slope, the Stahls have eliminated the need for augers and power. The whole feeding chore is easily handled by one man. —C.V.F.



Doorway of the feeder showing strong pole and plank retaining wall

Versatile Farm Vehicle



[Arthur Goodwin photo]

AN ONTARIO farmer transformed a hopper-type grain wagon into this versatile multi-purpose, money-saving vehicle.

He buys his fertilizer in bulk, having it loaded on delivery into the hopper wagon. Because the vehicle can be hauled about the farm, ferti-

lizer bins of planters can be filled on the spot, without effort, by means of tractor p.t.o. and an auger fitted to the wagon. Should he stockpile fertilizer or grain, an electrically powered auger, suspended from an overhead track, speeds up the job without much physical effort. ✓

Rust Preventives Reduce Wear

JUST BECAUSE you are not using a plow or cultivator all year doesn't mean that wear on the implement stops. Rust will cause as much wear as an entire season of use.

Because rust is a year-round

problem, rust-proofing, even for short periods of storage, pays, according to Dr. W. K. Bilanski of the School of Engineering at the Ontario Agricultural College.

"After each period of use and before the implement is put away for storage, be sure that all layers of mud, grass, and other dirt are removed, since rust is likely to form

under them," says Dr. Bilanski. "After the implement has been cleaned, touch up paint wherever necessary and spray each corrodible part with a modern rust preventive."

A fairly even layer of preventive film, which can be applied readily with either a fly sprayer, hand spray gun, or low-pressure air-line spray, will keep rust from forming, even while machines are left outdoors for prolonged periods of time. Applied over non-flaky, thin coats of rust, they penetrate and loosen the rust to assist removal while also preventing further corrosion. These preventives do not depend upon the thickness of the application for the amount and length of protection they give. However, because the film is broken or removed by machine use, weathering, or environmental abrasion, persistent touch-ups by re-spraying are necessary. Therefore, Dr. Bilanski suggests that you keep application equipment convenient and ready for use. ✓

Use Certified Plastic Pipe

PLANNING A farm water system? You should use C.S.A. certified pipe if you are going to build it with plastic pipe, particularly where you will be putting the pipe deep in the ground.

"Utility grade plastic pipe, being offered for sale at very low and attractive prices, is not recommended for use on water systems," says D.

G. Lehman of the Saskatchewan Department of Agriculture.

He explains that utility pipe is a sub-standard grade of plastic pipe. Specifications for utility pipe specify only the inside diameter and wall thickness and no check or inspection is carried out to assure these specifications are being met. The material used to manufacture utility grade pipe is not specified or controlled. Any material made of polyethylene can be reclaimed and used in the manufacture of utility grade plastic pipe.

In comparison, the manufacture of standard C.S.A. certified pipe is rigidly controlled and inspected by officials of the Canadian Standards Association. The raw product used must meet C.S.A. specifications and no reclaimed plastic can be used.

The initial cost of a water system using utility grade plastic pipe may be less but you run the risk of replacement and repair costs which become very high when the pipe is buried in the ground.

As an example of the false economy of using utility grade plastic pipe Mr. Lehman pointed out that with trenching costs of 50¢ per foot it would cost \$50 per 100 feet for retrenching if the water system failed and had to be replaced, and the saving on 100 feet of 1" pipe would be less than \$7 if utility pipe was used in place of C.S.A. certified pipe. "The potential loss is seven times as great as the saving and you may have to purchase the more expensive C.S.A. certified pipe in the end," says Mr. Lehman. ✓

Workshop

Brush Restored

The leading bristles of a good wire brush often become worn and bent before the bristles at the heel of the brush are worn. The length of worn bristles prevent the good bristles from getting into working areas.

The brush can be restored to usefulness by cutting off the worn bristles and backing, thus exposing the sharp unused bristles for use. —H.J., Penna. ✓

Door Stop

A door stop can be quickly made using a screw nail, a spool and a piece of hose. The hose is slipped over the spool to cushion the door and then the spool is nailed to the floor in the proper place with the screw nail. —N.M., Alta. ✓

Livestock Feeder

A self-feeder for minerals can be made by adding feed boxes to the sides of a barrel. By placing the barrel on the fence line and adding a box on either side it can be made to serve two pastures. —A.W., Alta. ✓

Anti-Freeze for Locks

Small amounts of water that collect inside a lock and freeze can jam it. To prevent this, put a couple of drops of anti-freeze into the keyhole of each lock. This keeps the moisture inside the lock from freezing and can save a cold struggle and the bent or broken keys that result from trying to force a frozen lock during the winter. —B.C., Calif. ✓

The reader comes first! Don't hesitate to write Country Guide to suggest how our magazine can serve your farm, your family and your community. The address is Country Guide, 1760 Ellice Ave., Winnipeg 21, Man.

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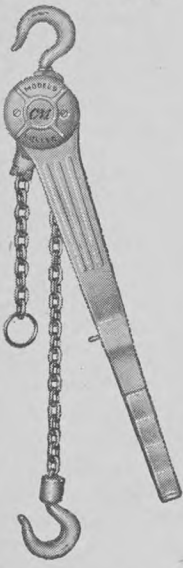


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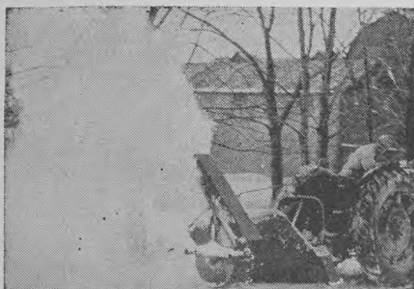
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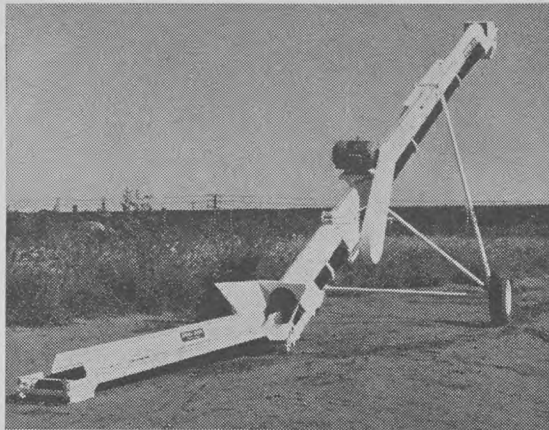
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Conveyor Belt Works in a Tube



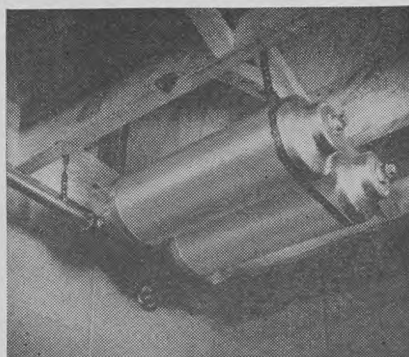
This tubular conveyor
has a horizontal take-
up drive assembly with
260 degree belt wrap.
The drive is from the
reverse side of the belt
which has a polyure-
thane surface. This de-
sign is said to increase
belt life as well as im-
prove pulling power.
(Speed King Mfg.)
(569) ✓

Meters Four Ingredients



This unit is designed to adapt to
either a direct drive hammermill or
roller mill. It is designed to mix up to
four ingredients by a new volumetric
metering system. Individual clutches
on each meter permit selection of
ingredients and accurate calibration.
A mill by-pass permits by-passing
the grinding area with any one or
more of the four ingredients. (Clay
Equipment Corporation) (570) ✓

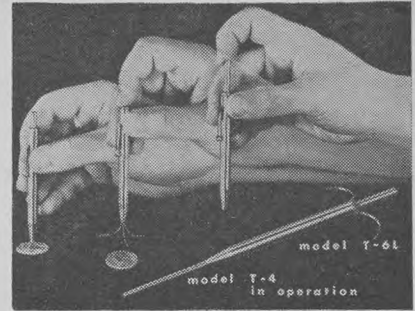
Pressure System Without Air



This pressure unit is designed to
provide pressure with an elastic
membrane contained in a metal tank.
Its simple design permits easy in-
stallation at any point along the
water line by inserting a tee into
the pipe. Multiple units can be in-
stalled for increased capacity. They
may also be installed at any point
along the line where pressure in-
crease is needed. (Jacuzzi Bros.
Inc.) (571) ✓

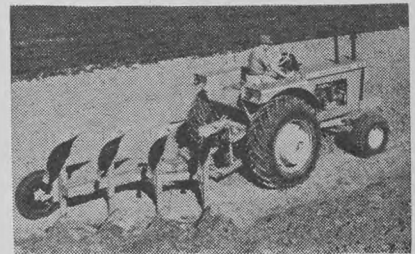
What's New

Picks Up Small Objects



The three resilient hooked fingers
of this hand tool are designed to
pick up small oddly shaped objects
that are difficult to handle. The
fingers are designed to flare out from
the tip and grasp an object when
the plunger is released. The tool is
designed to hold objects without any
finger pressure and to release with
a slight push on the plunger. (Univer-
sal Technical Products Co.)
(573) ✓

More Roll Over Plows

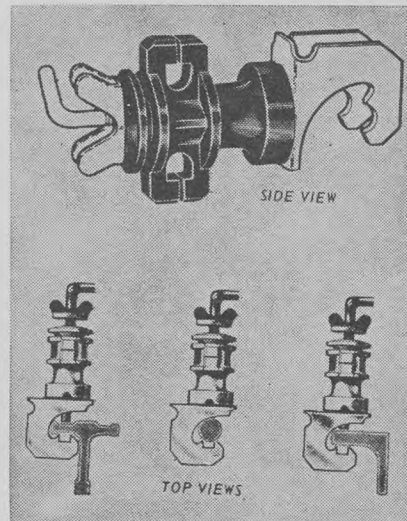


Three-bottom and four-bottom
heavy duty plows have been added
to this 2-way plow line. The new
plows feature an exclusive hydraulic
rotating device that is designed to
provide quick response with smooth,
reliable action. It is a 2-way ram
actuated by a special spinner valve,
designed to give maximum leverage
at the beginning of the spinning
cycle. A double check holding valve
locks the plow in working position.
This design is also intended to re-
duce plow maintenance by avoiding
gears, chains, racks and extra link-
ages. (Allis-Chalmers) (574) ✓

Insulator Grips All Posts

A fastener that grips firmly on
any kind of steel post (tee, round or
angle) requires no tools for easy,
quick installation and will not shake
loose or turn is featured in this
electric fence insulator.

The insulator itself features twin
wire holders that will take any size
of smooth or barbed wire that re-
quire no wire clips. (Dare Products,
Inc.) (572) ✓

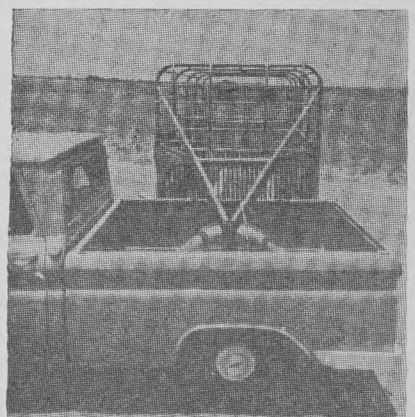


SIDE VIEW

TOP VIEWS

Hitch Boosts Truck Capacity

This trailer hitch mechanism is
designed to be placed in the bed of
a pickup truck box so that the truck
can haul heavier than normal loads
with safety and ease because of the
better distribution of weight. It also
enables one man to hitch or unhitch



the special trailers quickly and easily
regardless of load weight. Trailer
capacities are 6 and 9 tons in lengths
of 16', 20' and 24'. They are de-
signed for use with trucks of half-ton
capacity or larger. (Hanover Trail-
ers) (575) ✓

For further information about any item mentioned in "What's New," write
to WHAT'S NEW, Country Guide, 1760 Ellice Ave., Winnipeg 21, Man.

The Reforming of McGregor

by E. G. PERRAULT

No one in the world, McGregor thought, could lead him into the "candy-coated, beribboned trap" of Christmas celebrating. Then came a small knock on his door one Christmas Eve. . . .



THIS MCGREGOR

wasn't a Scrooge exactly. It might be said he was just born suspicious. For that reason, he regarded most Christmas celebrating as work of the Devil.

"Commercial!" he snorted angrily. "A candy-coated, beribboned trap into which foolish folk tumble of their own free will!"

If McGregor boycotted Christmas, he waged war on marriage. Heaven help the soul who told Georgie McGregor he needed a wife.

"I'll thank you to mind your own business!" he would retort. "I want none of a woman's sharp tongue and fancy ways. I eat my oatmeal when I please and smoke my pipe at the table. There's no woman can change that!"

As a result, he remained the most ineligible bachelor in town. But none would dispute the fact that he was the best gardener and nurseryman by far.

He was, in fact, watering a bed of special chrysanthemums for the late Christmas trade when a small knock was heard on his greenhouse door. It was the evening of December 24. The hour was seven forty-two. McGregor confirmed this with an impatient glance at his watch as he strode to the door and looked through the misted panes.

His fierce eyes peered vainly for the usual customer fresh from the Christmas dens of the money-changers. Shifting his gaze from eye level to the ground, he encountered two faces smiling at him joyfully.

"Boys!" he muttered. "Christmas carolers, no doubt! Away with you!" he called, and made an angry gesture.

"Singing for coins!" He considered the shamefulness of it as he returned to his blooms.

He had no more than raised the watering can again when the door opened a crack behind him. "Please, sir, can we make a purchase?"

It was a thin voice. There were two things about it that stayed McGregor's temper. One was the mention of a sale, and the other was an unmistakable accent. It was pure Glasgow.

"Don't stand there letting the cold in on my plants," he snapped. "Come in."

They entered hesitantly, two small boys, one in his tenth year possibly, and the other no more than six. They were as polite as small boys can be at Christmas-time.

"Well, then?" said McGregor. "What will it be?"

"A holly wreath, sir," the older boy requested.

McGregor bristled. "You'll buy neither holly wreaths nor mistletoe here," he told them. "I don't deal in that nonsense."

"We saw you had some big holly trees in front of the house." The boy's voice was more uncertain now.

McGregor maintained stony silence.

"Our ma likes holly," stated the smaller boy hopefully.

The silence widened. Presently McGregor heard their footsteps retreating softly behind him. They weren't bad-appearing lads, he reflected.

"You're from Glasgow," he said abruptly without turning his head.

"Yessir, we are."

"Are you long over?"

"Four months, sir, with our ma."

McGregor swung around. "Would you settle for a nice bunch of chrysanthemums?"

"Ma is partial to a holly wreath at Christmas," said the older boy. The two of them stood looking at him hopefully.

McGregor snorted, reaching at the same time for his cutters. "I suppose the holly trees can do with a bit of trimming down," he said. "Come along."

They ran behind, trying to keep up as he crunched with a long stride through the deep snow of the yard.

McGregor reached up into the rich green of the holly tree. Branches began to fall in the snow, the clusters of red berries glowing like rubies on the white.

"Whew! That's a great lot," breathed the small one, impressed.

McGregor picked up the rustling mass of green, stamped back to his nursery house, and began to shape the wreath.

"What are your names?"

"Mine's Davie Gilmore," said the older.

"Mine's Dougie," the smaller informed him.

(Please turn overleaf)

"You wouldn't know Kelvin Grove Park?" asked McGregor with deliberate carelessness.

"Like my own hand," said Davie eagerly. "Dougie and I used to wheel pa through it."

"You may have noticed the rock gardens in the south border," said McGregor casually.

"With the fountains and wee gold-fish pools?" asked Dougie.

McGregor nodded.

"That was our favorite spot! Wasn't it, Davie?"

"You may be interested to know," said McGregor, "that I put in the rock garden, every stone of it, in the year 1937, before I shipped over here."

They look at him silently. He could feel their admiration.

"Did you do any fishing?" he asked.

"Whenever we could, sir. Pa sent us to a place he used to fish near Loch Fyne."

"Ah-h, Loch Fyne, indeed," said McGregor approvingly. "There was a certain stream I fished in that direction that hid the finest trout in the world."

"Near the little kirk?" demanded Davie eagerly.

"Exactly the place," said McGregor. "Do you know it?"

"We pulled two fine ones out of there a week before we left Glasgow, did we not, Dougie?"

Dougie nodded proudly.

"Well, now," said McGregor getting back to business. "There's a wreath for you."

"It . . . it's much too nice," gasped Davie. "Will we have enough money, do you think?"

"One dollar should cover it nicely," said McGregor briskly. "I can give you a bit of colored ribbon for that price."

The boys looked narrowly at one another. It was a bargain!

"We'll do it!" they said, almost in unison.

"There's one condition," said McGregor. "You're to keep it hidden on the way home: Christmas wreaths are not my business."

They nodded solemnly and passed him a moist dollar bill. Davie wrestled with the wreath.

"Be careful with it now!" said McGregor irritably. "Where do you live?"

"A block or so down the street, sir," said Davie.

"Come along, then," said McGregor with resignation. "I'll see you home with it." He took up the wreath and they followed after him.

THE JOURNEY was a silent one. McGregor puffed his pipe and cursed himself inwardly for letting two young fry use him in this manner.

Finally they turned through the gateway leading to an unpretentious cottage, and started up the walk.

Reflecting on it afterward, McGregor supposed it must have been Davie's trailing muffler that did it. He was never quite certain because the fall shook the sense right out of his head. One moment he was mounting the frosty stairs, and next he was sprawling on his back blinking up at the two startled boys.

The door was open by the time McGregor had pulled himself to a sitting position. The woman in the doorway was calling.

"Davie! Dougie! Goodness sakes, what are you up to?"

Davie was trying manfully to help McGregor to his feet. "He fell and gave his head a crack, Ma. I think he's all right."

"Of course I am all right," growled McGregor.

"I'm sorry, sir," said the woman anxiously. "The boys don't mean any harm. Will you come in and sit a moment?"

Standing on rubbery legs, McGregor needed to sit. He hobbled painfully into the house and slumped into a chair beside the blazing hearth. Almost miraculously, a glass materialized before him. It contained a generous portion of amber fluid which his trained eye identified as whiskey. He took it gratefully.

"It's kind of good medicine at a time like this," she said with a worried note in her voice.

"It is indeed, ma'am," he said and appraised her over the edge of the glass. She was small and trim, with dark brown hair swept back from her brow. Her eyes were hazel — like the color of a Loch Fyne trout pool, McGregor thought.

"I'm fine now," he said struggling to his feet.

The emergency was over. "Christmas surprise, Ma!" cried Dougie. The wreath came out of concealment.

"Well, look at this now," she gasped. "A real holly wreath. The nicest I've ever seen!"

The boys stood proudly while she admired it. McGregor let his eyes wander modestly. On the mantelpiece was a portrait of a young man in the kilted battle garb of a Highland regiment. Beside it was a smaller picture — a family portrait of the two boys, the mother, and the same soldier, this time thin and wasted sitting erect in a wheelchair.

"My husband," she said quietly behind him. "He was wounded in Normandy. He died last year."

SOMEHOW McGregor felt a comradeship for the sturdy, kilted figure. This was the same man who had

fished the streams of Loch Fyne.

"Davie can see you home," she said. "Your wife will be worrying."

McGregor threw his shoulders back aggressively as he looked at his pipe. "I'll not be needing the help of the boy, and I have no wife fretting for me." He strode to the door.

"It's nice to have the smell of a pipe in the house again," she said.

"I'm a heavy smoker," he informed her ominously.

She laughed. "Not the way Jim was. That man smoked a pipe for breakfast."

McGregor went down the stairs in silence. Behind him the little family filled the doorway.

"Good-night!" said the boys.

He waved a hand at them briefly.

Mrs. Gilmore's voice called after him. "Can you carve a bird, sir?"

"I've carved more than one in my life," he told her with restraint.

"I'm a poor hand at it myself," she said, "and we've got a fine turkey for the Christmas meal, tomorrow. I'd be grateful if you'd do the carving for us."

McGregor deliberated. "If it is likely to be a task for you, I'd be pleased to help out," he said.

"We'll eat at two," she told him. "And a Merry Christmas to you!"

"Merry Christmas!" said McGregor loud and clear before he could stop the words. He turned in embarrassment and marched hurriedly down the street.

Ahead of him were the bright lights of the town. The lads could use a gift, it occurred to him. Perhaps a fishing rod each and some good flies to go with them. He quickened his pace, heading straight for the shops — the stronghold of the Christmas money-changers. ✓

Let's Think It Over

by THE REV. M. L. GOODMAN



All I Want for Christmas

There was a song a few years back: "All I want for Christmas is my two front teeth." Our youngest used to sing it but it came out sounding like this: "All I want for Christmas is my front two feet." Naturally we used to encourage him to sing it as often as possible. In addition to not having heard the song properly in the first place his difficulty was that he himself had great need of a couple of front teeth. It's certain, however, that he would have been pretty disappointed if that was all he'd got for Christmas!

Old or young we don't always get what we want and we don't always want what we need.

We *want* to enjoy Christmas and forget our worries. We *need* a deep and abiding peace in our hearts — a peace which the Lord of Christmas desires to give us. We *want* the family at home for Christmas. We *need* to think more deeply about the reality of the family of God. We *want* to have a fine festive dinner "just like old times." We *need* to gather round the table of the Lord and recognize and know Him there.

God bless you and give you — not just what you *want* — but what you *need* for Christmas.

Suggested Scripture: Revelation III, verses 14-end.

Shelter or Sail?

Religion is like a piece of canvas.

You can use it for a shelter or a sail. You can take a piece of canvas out to the backyard and make it into a sun shade. You can set up your easy chair, get your book, your cool drink and just sit there, ignoring the world around you. Or you can take your piece of canvas and let it be a sail. Thus

used it will carry you out into the wide world, where there is danger but where there is also destiny, meaning, and fulfillment.

There are some of us who are preoccupied with the shelter idea. Religion must make us feel safe and comfortable or we don't want it. Religion must allow us to sit still and relax or it's no good. Religion must allow us to ignore unpleasant realities or it's undesirable.

Christ's call is a call to adventure, to lives that mean something. His call is a call to responsibility and awareness. While He does bring peace (but not the sheltered peace of those who would shut their eyes and hope for the best), He also disturbs and challenges.

He does not ask to be a guest at a barbecue in the backyard but a companion in the whole wonderful enterprise of life.

Suggested Scripture: Matthew VIII, verses 18-27.

Ready for '66?

"Father, let me dedicate all this year to Thee, in whatever worldly state Thou wilt have me be. Not from sorrow, pain, or care, freedom dare I claim. This alone shall be my prayer — Glorify Thy Name."

As long as stories are read Robinson Crusoe will surely remain one of the most popular. Many of us may not have read the unabridged text. The writer wrote it as the story of a man of faith. Crusoe was cast up on the shores of a lonely island but he brought certain things with him from the shipwreck. Above all he brought courage and faith.

You and I can be washed out of the old year on a tide of sentimentality and festivity and cast willy-nilly on the shores of the new. We can be stranded there spiritually and morally helpless until the tide again engulfs us and sweeps farther along to the island of yet *another* year. So we can go on and on to the day we die—living lives of no eternal significance, making no eternal choice — flotsam and jetsam on the seas of time.

Of all the things before us let us now choose faith. By the grace of God we are now going to begin to live — and not just exist — poor subjects of calendars and clocks.

We do well to turn to the "Christmas Gospel" and read these words: "In Him was life; and the life was the light of men. And the light shineth in darkness; and the darkness comprehended it not . . . He was in the world, and the world was made by Him, and the world knew Him not. He came unto His own, and His own received Him not. But as many as received Him, to them gave He power to become the sons of God, even to them that believe on His Name."

Suggested Scripture: St. John I, verses 1-14.



The Kirkton Community Association building isn't a barn; the silhouette so familiar in the farm community houses dressing rooms and stage for Garden Party performers



Individuals, family groups, tourists and school students such as these take advantage of the recreation and picnic facilities in the roadside park maintained by the Association

by GWEN LESLIE

Tithing Their Talents

THE STREETS OF Kirkton and Woodham are brighter, the local public library a prouder place, the town hall warmer, and three rinks in the community are better built through help given them by the Kirkton Community Association.

The Association celebrated its 20th anniversary this year, just a few months before the annual event which makes these community improvements possible. Well over 4,000 residents of southwestern Ontario throng to the Kirkton Fair Grounds each July for the Kirkton Community Association Annual Garden Party. They park their cars in the supervised parking provided free after paying admission fees of \$1 per adult and 25 cents for children. And they settle in to watch two league-leading men's softball teams play the game scheduled for 6:00 p.m. Refreshments are available from the 4-H booths under the supervision of the Women's Institute. The 4-H barns themselves were an earlier Association project!

Once fed, it's back to the bleachers, or the benches and chairs set up in front of the Association's own fair grounds building — built to house a good-sized stage and dressing rooms. The Little Star program starts at 7:30 p.m.; an all-star professional stage show follows at 9:00 p.m.

The Kirkton Community Association was founded to serve two purposes: to provide both entertainment and improvements in its rural community. Both have been met but there've been by-product benefits, too. A number of the youngsters who competed in the juvenile program have been encouraged to further study, and some have built careers on the talent first given a public hearing on the KCA stage. And with the experience gained in running their own competition, the Association was able to take on the organization and sponsorship of the Blanchard Township Music Festival when township population required it. With representatives of both the township and the Federation of Agriculture on the Association directorate, grants from these groups were easily obtained for the Festival.

Youngsters in the community have good reason to believe in the worth of the Association. In 1964, it initiated cub and scout troops as yet another contribution to community activities. And for some years the Association has taken the responsibility for the upkeep and maintenance of the roadside park which provides swimming and picnic facilities on the edge of Kirkton.

In these same youngsters, the KCA can look for a continuation of their program of community improvement, based on the motto penned by Edward Hale:

*"To look up and not down,
To look forward and not back,
To look out and not in, and
To lend a hand."*

✓

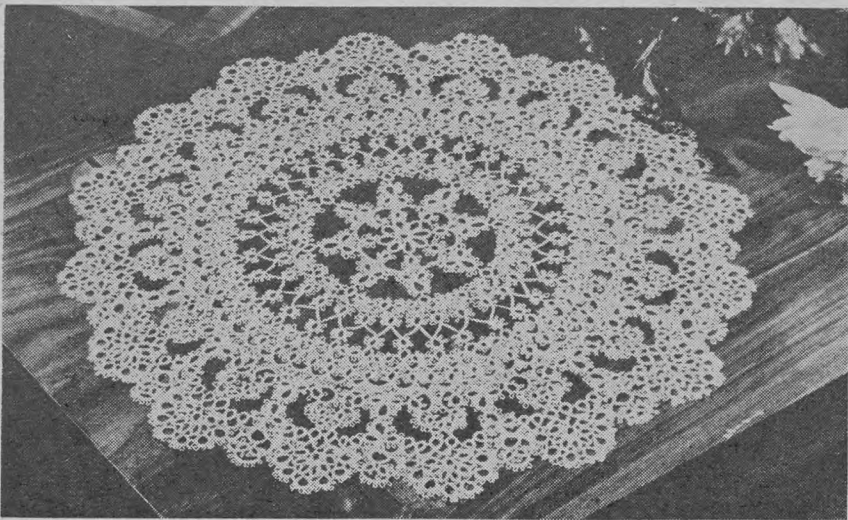


Mrs. George Wilson, Association secretary for the past 15 years, credits KCA's achievements to co-operation and good organization

Home and Family



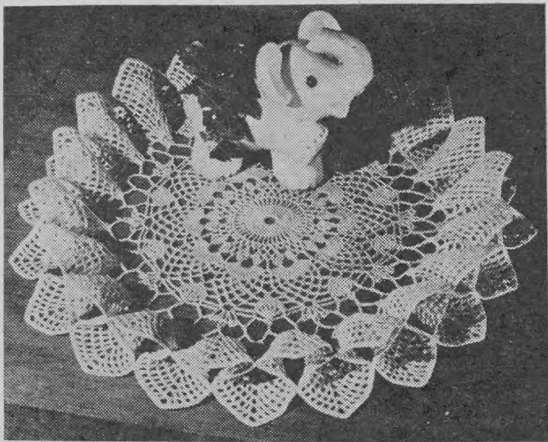
The community hall owes its kitchen and heating facilities to Association grants



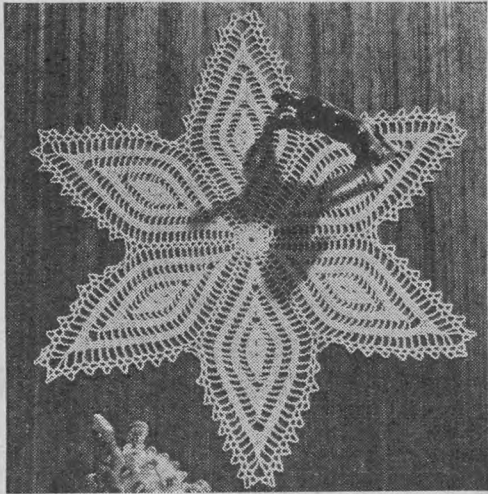
Tatting creates a daisy-centered circular doily that measures 15" in diameter. Order Leaflet No. T.P.T. 8986, 25¢, for detailed tatting directions.

HANDICRAFTS

Accessories

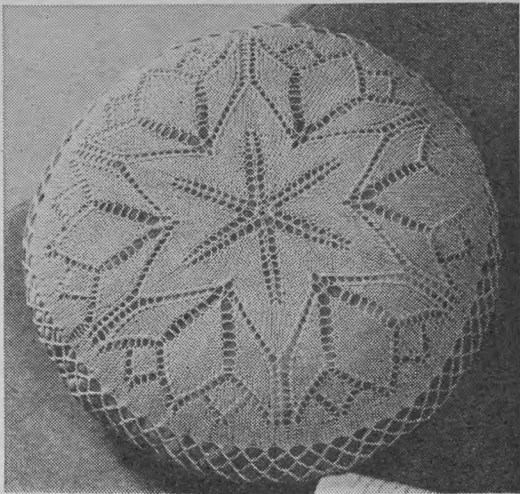


Leaflet No. C-139, 25¢, offers crochet directions for a crisp ruffled doily called "Full Bloom." The finished doily measures 9½" in diameter.



The crocheted petal doily at left measures 13½" from point to opposite point. For detailed crochet instructions, order Leaflet No. C-8764, 25¢.

A 6-point star centers a knitted cushion cover, knit and assembled from instructions on Leaflet No. C-8402, 25¢. Two identical sides are joined by crocheting together over cushion.



For handicraft patterns pictured above please address your order to Country Guide Needlework Dept., 1760 Ellice Ave., Winnipeg 21, Man.

For Safety's Sake

Plea for Appliances

TODAY WE CAN choose from a wide range of electrical appliances, all designed to ease our workload. And, just as important, we can increase their efficiency and life, as home economists of the University of Saskatchewan's extension service point out, by observing a few basic rules.

DO . . . consider size, design and material in choosing appliances.

look for the Canadian Standards Association label (CSA) or the Underwriters Laboratories' seal of approval (U.L.) on the name plate, bottom or tag.

follow the manufacturer's directions for use and care.

oil motors only with the type and amount of oil suggested by the manufacturer.

handle all appliances carefully and avoid dropping or bumping them.

connect appliances directly into wall outlets or appliance circuits.

disconnect an appliance by pulling the plug from the wall outlet first and then the heater plug from the appliance.

disconnect the appliance and let it cool before cleaning it.

replace worn cords, cracked outlets or heater plugs to prevent a short circuit or fire.

keep a supply of correctly rated circuit fuses and cartridge fuses for the stove on hand for speedy replacement of blown fuses.

DON'T . . .

continue to use an appliance with a frayed cord, cracked outlet or heater plug.

reduce the efficiency of an appliance by using a long extension cord from the outlet to the appliance.

run an extension cord under a rug or across a doorway where it can be damaged and perhaps cause a fire.

immerse the electrical unit of any appliance in water unless the manufacturer specifically states that it can be done.

use harsh abrasive cleaners on enamel, chrome, nickel or stainless steel surfaces of electrical appliances.

use such agents as sal soda, baking soda, caustic soda or washing and bleaching solutions to clean aluminum surfaces.

use sharp instruments to clean around open elements in a toaster or hot plate.

replace blown fuses with higher rated fuses or use pennies or metal objects in place of fuses in fuse sockets.

On Vaporizers

INSECTICIDE vaporizers that release lindane and DDT vapors indoors are definitely not for home use, says Wayne J. Colberg, North Dakota State University entomologist.

"Vapors are as effective against man as they are against insects and several children have been victims where these gadgets have been used indoors," he warns. Colberg explains that he is not talking about insect "foggers" used outdoors but of the electric heating units using lindane. The foggers use a chemical other than lindane.

The vaporizers are not recommended because they don't control the amount of insecticide released in a given period of time. Humans can breathe the vapors or insecticide crystals may form on food and utensils. Lindane vapors can cause eye, skin and lung irritation, he points out.

For this reason, use vaporizers only in non-inhabited buildings, storerooms or areas where food is not processed, served or stored and in areas not frequented by humans.

Homemakers' Hints

A good cheap paste for any use can be made quickly and easily by mixing 1 cup flour, 1 cup sugar, 1 tablespoon powdered alum and 1 cup water. Stir in 3 cups boiling water and a few drops of oil of cloves or peppermint for scent. Seal tightly in wide-mouthed jars. — Mrs. J. C. Svare, Ratner, Sask.

Jars of your favorite jams and jellies make delightful Christmas gifts. Add sparkle to jelly glasses by sprinkling glitter on top of the paraffin before it sets completely. Tie lace paper doilies over jam jar tops with bright red or green ribbon, and

attach the recipe. Gummed gold-colored stars add another festive touch.—Judy Barden, Houston, B.C.

I use old newspaper, kept handy in the kitchen, to dispose of vegetable peelings and scrapings from dishes before dishwashing. The newspaper wrap absorbs moisture and keeps the garbage can neat and clean.—Mrs. Betty Friesen, Altona, Man.

Old felt hats ready for the discard may be put to use again. Cut cosy insoles from them for boots, waders, or slippers. — Mrs. Roger Gagnon, Rocanville, Sask.



Olive O'Seen learned to weave while she was living in the city. When she went back to the farm to live, she found the young married women in the community anxious to learn too. They were so enthusiastic they set up a handicraft guild

[Guide photos

MOST OF US HAVEN'T come any closer to learning how to weave than darning a pair of socks. But in the heart of the Alberta dryland some 30 miles north of Lethbridge, a group of women are not only learning how to weave, they've bought a 45-inch loom so they'll be able to weave their own fabric in a variety of widths and patterns. They're the members of the Sundial Branch of the Canadian Handicrafts Guild who have Olive O'Seen as their instructor.

It all began when Olive and her husband moved back to their farm home near Turin, Alta. The O'Seens had been living in Lethbridge while their four youngsters went to high school. Living in Lethbridge gave Olive the opportunity to join the handicrafts guild. Always an enthusiastic handicrafter, she was delighted to have the opportunity to learn how to weave.

"When I was a little girl I loved to watch my grandmother at her old-fashioned loom," she recalls, "and when I learned that the Lethbridge guild was giving instruction in weaving, I jumped at the opportunity."

Back home on the farm, she found many young married women in the community who wanted to learn too. They also wanted help in other crafts—knitting, crocheting, smocking. Once they discovered their common interest, they decided to form a guild affiliated with the national association and ask Olive to serve as instructor. This is what they did. They named it Sundial Branch (after the big butte that is a district landmark). It has been most worthwhile, Olive says, mainly because members can now locate the craft materials they need and also keep in touch with members with similar interests in other parts of Canada.

They meet once a month from October until April and then break off for a summer months' recess. However, at the end of the season, usually in April, members do display their work at a tea held in the school-turned-community-center down the road from the O'Seen farm. Some of the money from the tea has gone toward the purchase of the loom.

Olive O'Seen's family has moved on to university now and this leaves her with many less household duties. But this poses no problem. She's as busy as ever—with handicrafts for herself and her community. V

They Weave for Christmas Giving

by **ELVA FLETCHER**

Home Editor

MARIA NELSON and her husband Wesley are semi-retired now and they've rented out most of their farm holdings near the village of Justice a few miles north of the Trans-Canada highway near Brandon, Man. Their daughters Helen and Catherine are married and in their own homes. Now, energetic Maria Nelson has time for some of the things she's been wanting to do for years.

First of all she learned to weave. Her shuttle flew the first couple of years. She produced a bedspread, countless yards of linen curtaining for the two girls, a tablecloth for a friend, panels for screens and a suit length. Baby blankets and place mats became a Maria Nelson specialty. The baby blankets—34- by 45-inch ones—are always in demand and her girls invariably remind her—just before Christmas—that they need new place mats.

She was weaving some of these mats when I called in to see her last November. She has one loom in an upstairs studio, another in one of the bedrooms. The second one arrived, she chuckles, about the time Wesley decided he wanted to weave too. But his interest didn't last long. He made two things: a blanket for a baby who had been named after him and enough fabric for a suit for himself.

"Weaving is a fascinating craft," she says, "but I'm convinced you need to study the theory before you ever think of investing in a loom." She herself started off with a beginner's book on weaving and then, when she thought she knew the basic principles and had her loom, she invited master weaver Elsie Ogston out from Winnipeg to spend a few days with her. Between them they crammed an entire winter's course into those few days.

Another interest took her back to college when she was asked if she was interested in setting up a high school library in Brandon. It meant going back to college and majoring in education at the University of Minnesota in Minneapolis. But she did it. "It took a lot of courage," she says, "because I was a grandmother among teen-agers."

"My biggest problem was to learn to discipline myself to concentrate on what a lecturer was saying because I'd find my thoughts wandering far from the subject," she recalls. "However, once I made that adjustment I got along all right." Once she had her degree she taught English for a year and also set up the library at Brandon's Harrison High School. "It was pure pleasure," she says of that experience.

These experiences prepared her for still another experience—as provincial director of the National Federation of University Women's Clubs. She's finding this role just as stimulating as her other interests because it means she's working with programs designed to encourage women to redevelop their skills once their families are away from home.

Maria Nelson has another noteworthy interest—the poetry she writes for her own pleasure. But now she's thinking of gathering it together.

"Maybe I'll even get around to putting it into book form as a centennial present for the grandchildren," she smiles.

Maria Nelson, of course, is a lot like Olive O'Seen. They're people who have no fear of the future, probably because they're much too busy and their days are so full. V



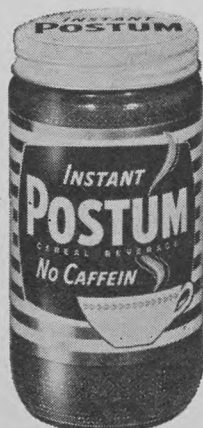
Maria Nelson (above) took up weaving once her daughters were out of school and in their own homes. It's easier if you study the basic principles first, she suggests. She weaves many articles, now specializes in place mats and baby blankets



About Now... Unwind

You've had a day of it—but from here on, time is yours. Relax. Put your feet up. Think quiet thoughts. And enjoy these evening hours with a soothing cup of delicious Postum.

Instant Postum contains no caffeine or other stimulants, as found in tea or coffee. It is made from whole grain cereals, slow-roasted to bring out their natural flavour. Try it—see how relaxed you'll feel after a cup of **CAFFEIN-FREE POSTUM.**



[J. Walter Thompson Co. photo]

Modeled after Austrian stollen, Christmas quickbread makes a hit as a taste-tempting addition to a festive breakfast. Carolers enjoy it later in the day

Featuring Festive Fare

by **GWEN LESLIE**
Food Editor

SO MANY THINGS contribute to the joy we rediscover each Christmas season. The gathering of family and friends takes on special meaning as we celebrate again this special Birthday. Amid the twinkling of the gaily colored lights, the scent of ever-green, the welter of ribbons and wrap, we celebrate at mealtimes too, marking the season with festive foods.

A good breakfast is especially important when days are long and excitement runs high. And extra effort may be needed to woo impatient parcel openers to the table! Tempt them with festive fare: grapefruit halves, baked breakfast rings, and a fruit-studded Christmas quickbread; or stewed prunes with fresh orange sections and the zest of grated orange rind, followed by scrambled egg surprise and mince muffins. If they simply won't sit still for more than juice and cereal, they will be more than ready for lunch; you'll find ham and eggs on toasted buns worth its eye appeal in staying power through the long afternoon.

The Christmas dinner menu often becomes a family tradition. For those who like to add one new thing to the customary pattern, we offer a lemon foam sauce to complement the richly fruited Christmas pudding.

A cranberry souffle salad is equally good with hot and cold turkey, and provides a pleasant contrast in color and texture to a turkey crunch casserole later on.

Frosted strawberry delight repeats the rosy glow of happy faces during the holiday season and throughout the year. Make this luscious freezer dessert now with frozen berries, and with fresh ones when they are again available to us in the new year.

From our kitchen to yours — a very merry Christmas!

Ham and Eggs on Toasted Buns

Six 3" slices ham, 1/4" thick
3 sesame seed buns
6 poached eggs
1 T. bacon fat
3/4 c. lemon-mayonnaise sauce, hot
Parsley

Split, toast and butter sesame seed buns. Heat bacon fat in frying pan and brown ham slices in it. Top each bun half with a ham slice, then a poached egg. Spoon 2 tablespoons lemon-mayonnaise sauce over each egg and garnish with parsley sprigs. Serve immediately. Yields 6 servings.

Lemon-Mayonnaise Sauce: Combine 3/4 cup mayonnaise, 1 1/2 tablespoons lemon juice and a dash of tabasco sauce in top of double boiler. Place over hot, not boiling, water for 10 minutes, stirring occasionally.

Christmas Quickbread

2 c. sifted all-purpose flour
2 tsp. baking powder
1/2 tsp. salt
1/2 c. sugar
1/8 tsp. mace
1 cardamom seed, husked and finely crushed
1/4 c. chilled butter
1/3 c. finely chopped suet
3/4 c. mixed light and dark seedless raisins
1/3 c. chopped blanched almonds or filberts
1/4 c. chopped mixed candied peel and citron
1/2 c. creamed cottage cheese
1 egg
2 T. milk (about)
1 tsp. grated lemon rind
1/2 tsp. vanilla
1/8 tsp. almond extract
1/2 tsp. rum flavoring
Soft butter
Sifted icing sugar

Preheat oven to 325°F. (moderately warm). Grease a cookie sheet.

Sift the measured sifted flour, baking powder, salt, 1/2 cup sugar, ground mace and crushed cardamom seed together into a mixing bowl. Cut in the 1/4 cup chilled butter to make fine crumbs. Mix in chopped suet, the mixed raisins, nuts and mixed candied fruit. Make a well in this mixture and add cottage cheese, egg, milk, lemon rind, vanilla and almond and rum flavorings. Blend very thoroughly, working in a little more milk, if necessary, to make a rather stiff dough. Shape dough into a ball and turn out on a lightly floured board or canvas. Knead lightly. Roll out into an

oval 10" by 6". Brush oval with a little milk, then fold dough lengthwise, leaving bottom about ½" wider than the top. Lift carefully onto greased baking sheet. Bake about 45 to 55 minutes. Remove from oven and brush the hot loaf with soft butter, then sprinkle generously with sifted icing sugar. Cool thoroughly, then store in a tightly closed container for 2 or 3 days before serving. To serve, slice and spread with butter. Yields 1 loaf.

Baked Breakfast Rings

Line greased custard cups or muffin tins with buttered bread crumbs and strips of partly cooked bacon, forming each bacon slice into a ring against the sides. Break an egg into the center of each bacon ring, and bake in a moderately slow oven at 325°F. for 12 to 15 minutes, depending on the firmness desired.

Scrambled Egg Surprise

Prepare scrambled eggs as usual. For every four servings, heat ¼ cup of chili sauce. Place half-servings of eggs on each plate, spoon about ½ tablespoon chili sauce over each serving, then top with remaining eggs. Serve at once.

Lemon Foam Sauce

- 2 egg yolks
- 1 c. sifted icing sugar
- Few grains of salt
- 1 tsp. grated lemon rind
- 1 T. lemon juice
- ½ pt. whipping cream (1¼ cups)

Beat egg yolks until thick and lemon colored. Gradually beat in icing sugar, then salt. Stir in lemon rind and juice; blend thoroughly.

Whip the cream until stiff, then fold into egg mixture. Cover and chill. Serve cold with Christmas pudding. Yields about 8 to 10 servings.

Turkey Crunch

- 3 c. diced cooked turkey
- 4-oz. can mushroom stems and pieces, drained
- ½ c. chopped celery
- ¼ c. chopped onion
- ¼ c. chopped green pepper
- 2-oz. jar sliced pimiento, drained
- Two 10-oz. cans condensed cream of mushroom soup
- 1 c. milk
- 3-oz. can chow mein noodles

Preheat oven to 325°F. (moderately warm). Butter an 8-cup casserole or baking dish.

Combine turkey, mushrooms, celery, onion, green pepper, pimiento and poultry seasoning in buttered baking dish. Blend together the mushroom soup and milk and pour over turkey mixture in dish. Stir to blend. Sprinkle chow mein noodles around the edge of the baking dish or casserole and bake 40 minutes. Garnish with green pepper and pimiento pieces, if desired. Yields 6 servings.

Cranberry Souffle Salad

- 1 pkg. unflavored gelatin
- 2 T. sugar
- ¼ tsp. salt
- 1 c. water
- ½ c. mayonnaise
- 2 T. lemon juice
- 1 tsp. grated lemon rind
- 1-lb. can whole cranberry sauce
- 1 orange or apple, peeled and diced or ¾ c. pineapple tidbits
- ¼ c. chopped walnuts

Combine gelatin, sugar and salt thoroughly in a small saucepan. Add water. Place over low heat, stirring constantly until gelatin is dissolved. Remove from heat and stir in mayonnaise, lemon juice and rind. Blend with a rotary beater. Pour into refrigerator tray and quick-chill in freezer for 10 to 15 minutes or until firm for about an inch from the edges but soft in center. Beat with rotary beater until fluffy, then fold in remaining ingredients. Spoon into an oiled 4-cup mold or individual molds and chill until firm. Unmold on serving plate and garnish with salad greens. Yields 8 to 10 servings.

Mince Muffins

- 1½ c. sifted all-purpose flour
- 3½ tsp. baking powder
- ½ tsp. salt
- 3 T. sugar
- 1 egg, well-beaten
- ½ c. mincemeat
- ¾ c. milk
- ¼ tsp. vanilla
- 3 T. cooking oil

If you wish to serve these muffins fresh from the oven, preparation may be divided and spread over 2 days. The first day, sift the flour, baking powder, salt and sugar together into a mixing bowl. Cover and set aside. Grease about 12 medium-size muffin cups.

Christmas morning, preheat oven to 375°F. (moderately hot).

To finish preparing the batter for baking, beat the egg and blend in mincemeat, milk, vanilla and cooking oil. Make a well in the dry ingredients; add liquids and mix lightly, only until dry ingredients have been moistened. Batter should look lumpy. Fill muffin cups ¾ full and bake 20 to 25 minutes.

Serve warm with butter. Yields about 1 dozen muffins.

Frosted Strawberry Delight

- 1 c. sifted all-purpose flour
- ¼ c. brown sugar
- ½ c. chopped walnuts
- ½ c. butter, melted
- 2 egg whites
- 1 c. sugar
- 2 c. sliced fresh strawberries or one 10-oz. pkg. frozen strawberries, partially thawed (if frozen strawberries are used, reduce sugar from 1 cup to ¾ cup)
- 2 T. lemon juice
- 1 c. whipping cream, whipped

Preheat oven to 350°F. (moderate).

Stir flour, brown sugar, chopped nuts and melted butter together and spread evenly in a shallow baking pan. Bake 20 minutes, stirring occasionally. Sprinkle ¾ of the crumbs evenly on bottom of a 13" by 9" by 2" baking dish or pan.

Combine egg whites, sugar, strawberries, and lemon juice in a large mixing bowl. Beat at high speed on electric beater about 10 minutes, or until stiff peaks form. Fold in whipped cream and spoon mixture over crumbs in baking dish. Sprinkle remaining crumbs over top. Freeze for 6 hours or overnight before serving. To serve, cut in squares and top with a whole berry, if available. Yields 10 to 12 servings.

★ ★ ★

Key to Abbreviations

tsp.—teaspoon	oz.—ounce
T.—tablespoon	lb.—pound
c.—cup	pt.—pint
pkg.—package	qt.—quart

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Take the chill off winter with a cheese fondue party. Served with these easy-to-make fondue sticks your fondue will have true French flair. They're crisp and tasty . . . a perfect complement for your favorite fondue recipe. When you make them with Fleischmann's Active Dry Yeast you are sure of perfect results.

FRENCH FONDUE STICKS

(Yield—2 dozen)

Scald ½ cup milk. Add 1 cup boiling water. Cool to lukewarm. Meantime, measure into bowl ½ cup lukewarm water. Stir in 1 teaspoon granulated sugar. Sprinkle with contents of 1 envelope Fleischmann's Active Dry Yeast. Let stand 10 minutes. Then stir well.

Stir into lukewarm milk: 1½ tablespoons shortening, 1½ tablespoons granulated sugar, 2 teaspoons salt, and 3 cups pre-sifted all purpose flour. Beat until smooth. Knead in bowl until smooth and elastic working in enough additional flour (about 1¾ cups) to make a soft dough. Cover and let rise in a warm place, free from draft, until doubled in bulk, about 1½ hours.

Punch down dough. Turn dough out onto a lightly floured board; divide in quarters. Cut each quarter into six equal parts. Roll each piece of dough

between the palms of the hands to a 10-12-inch roll. Place on greased cookie sheet. Brush with a mixture of one egg white and 1 tablespoon cold water, and sprinkle with sesame seeds. Let rise covered as before about 40 minutes. Bake in preheated moderately hot oven (375°F) for 15 to 20 minutes. Serve as dipping sticks for French Fondue.

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[Singer photos]

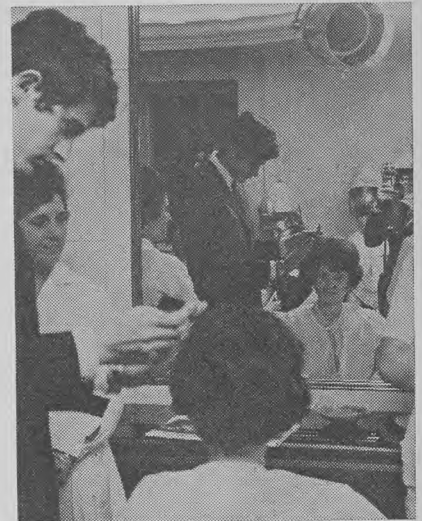
Many jet air miles from home, Darlene was the fourth finalist to walk the ramp into Leonardo da Vinci air terminal at Fiumicino, Italy. Flying overnight from New York, North Americans lost 5 hours and began a new day with a Sunday morning sun rising over the Alps while they breakfasted high above



by GWEN LESLIE
Home Editor

LEFT: Italian food? "Different . . . and nice," was Darlene's comment following a week of marvelous meals

BELOW: "I said plain . . . they gave me wings," Darlene said after her first encounter with a male hairdresser. He spoke Italian, she none



She Sewed Her Way to Italy

FIFTEEN-YEAR-OLD Darlene Thomas sewed her way from her farm home at Calmar, Alta., to a week-long Roman holiday last October. And if it took a week away from school, she gained a first-hand glimpse of Italian geography and historic sites.

Darlene visited Rome as one of 15 finalists in the 1965 Singer Young Stylemaker Contest, and the only farmer's daughter among three Canadians. This was the third time Darlene had entered the annual competition; in 1962 she was a local winner with the first dress she ever sewed. Her second entry, in 1963, earned her local and regional wins. And her 1965 entry won her a place among five finalists competing in Rome for Queen's title in the sub-deb division.

Petite and winsome Darlene sews all her own clothes. "I can't find any-

thing to fit me in ready-made clothing," she told us. "The 10's are too big and the 7's just don't suit me. When you sew yourself, you can choose the style and fabric and color and you know it's well made. And what I sew fits me." There's a saving too, she added. The tailored red wool suit she made to travel in cost her \$23. Her competition costume, a 3-piece suit sewn in creamy-yellow textured wool from a Paris original pattern designed by Lanvin, cost \$48 including linings, buckle and buttons.

For others lucky enough to make a flying trip abroad, Darlene had this suggestion based on her own experience. "Another time, I'd pack fewer clothes. I'd take suits mainly, and just one or two dresses," she said. This, she felt, would be plenty even for a week as full as hers with jet flight, touring, sightseeing, shopping and dining out.

For Darlene, the highlight of the trip was the day spent visiting Vatican City. She did regret that she didn't have a chance to get to know better the five Italian teenagers invited to share comments in a symposium discussion with the four Americans and one Canadian finalist in the deb division.

Both Darlene and her mother had warm words for the Italians they did have contact with. "Everyone was so kind, so helpful. And everything in Italy is so clean!"

One day's touring took the group past vineyards and through an area which supplies the city of Rome with salad stuffs. But the Thomases didn't see any farmland they would trade for their own half-section 30 miles southwest of Edmonton . . . and perhaps that's why coming home provides the happy ending to the best of trips.



Darlene modeled her contest entry atop an ageless animal—one of the many sculptured figures which adorn fountains, squares, buildings in Rome



LEFT: Darlene and four new friends, fellow finalists in the sub-deb division, climbed the famous Spanish Steps for yet another view of Rome

RIGHT: Darlene and Ann Meininger of Toronto, followed by Americans Carolyn Green and Lois Neitzel, walked the statue-studded garden paths of the Villa Lante di Bagnaia during a day's touring in the Italian province of Viterbo



Young Moderns Step Out

One of the many pleasing things about today's fashion trends is the attention given to the junior miss. Talented designers have created clothing distinctively designed to meet the needs and interests of each age and stage of development. Special sizings and stylings promise a fit to flatter every wearer. And easy skirt widths accommodate the active life she leads.

No. 3483. Braid trims fake pocket flaps and neck of quick 'n easy semi-fitted A-line dress and appears again on neck, front, sleeves of cover-up jacket. 2, 4, 6, 8, 10, 12, 14. 60¢.

No. 3482. A hip-length sleeveless jacket with fake pocket welts tops a front-buttoned, bow-necked blouse and box-pleated skirt. Skirt pleats are stitched to jacket line. Girls' sizes 7, 8, 10, 12 and 14. Price 60¢.

No. 3486. Both the front-buttoned, A-line coat without collar or sleeves and the contrasting underdress from this outfit may be worn separately. A-line dress features Peter Pan collar, cuffed sleeves, back button closing. Girls' sizes 2, 3, 4, 5, 6 and 6X. 60¢.

No. 3278. A-line jumper with fitted waist features deep U-neck and straps crossed in back. Blouse has Peter Pan collar, long sleeves. Sub-teen 8S-14S; Young Jr. 9-13; Teen 10-16. 60¢.

No. 3243. Top stitching trims the high yoke and panel front of a semi-fitted dress with pockets beneath panel. Without sleeves, this pattern makes a smart jumper. Sub-teen 8S-14S; Young Jr. 9-13, Teen 10-16. 60¢.

No. 3275. Versatile co-ordinates include A-shaped skirt with pleat at center front; sleeveless hip-length overblouse for jumper effect; front-buttoned blouse with tie collar; and notched collar jacket with $\frac{3}{4}$ sleeves. Young Jr. 9-13; Teen sizes 10-16. 60¢.



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The Christmas Concert

by LOUISA ANN CLARK

GARY WAS OUT of breath when he came home for lunch. He threw his coat on a chair, his mitts on another and scattered snow all over the floor. "Oh Mom," he shouted, "we're going to have a Christmas concert and I'm going to be in it."

"Quiet down," his father ordered. "Pick up your clothes, wash your hands and then tell us all about it over lunch."

But it wasn't until Gary had eaten most of his soup that his father said: "O.K., son. Let's talk now."

"Dad, did you know that the toys in a toy shop come to life in the night time?"

"Do they?" Dad asked.

"Well, they do in our Christmas play at school. We're all in it. I'm to be a toy soldier. Maybe I'll even be captain. If I can learn to march with my knees stiff and my back straight and twirl a stick better than the others, I can be the captain. Oh, Dad, do you think I can do it?"

"If you try, I think maybe you can," his father answered. But Gary didn't wait for an answer.

"Oh, and our teacher has costumes for us. They've got red capes and white pants with red stripes down the side. But, if I'm captain, I'll have a white cape with red stripes down the side and red pants with a white stripe."

He paused for breath and ate a few more mouthfuls.

"We'll put our play on in the auditorium and you're all invited. You'll come, won't you? The whole school is putting on the concert and Miss Hunter says everyone in our class will be in it. We're to be a toy store and everyone is going to be some kind of a toy. Some kids are to be rabbits and the girls are to be dolls. The best singers are to be angels and sing Christmas carols."

Gary's dessert was disappearing.

"I'm glad I'm a boy. I'd rather be a toy soldier than anything else. You'll come to the concert, won't you, Mom?"



THE DAYS which followed were full with practising for the concert. Gary never tired of it. The toy soldiers marched around and around the classroom to the music of the "Parade of the Wooden Soldiers." They held their backs straighter and straighter and their marching became smoother and smoother.

At last the day came for Miss Hunter to choose the leader. Gary was good, but so was Ross. Then, all of a sudden, Gary didn't care any more. His shoulders sagged, and his feet lagged. He wished the music would stop and he could sit down. His head ached and he was out of step.

"Gary, come here," said Miss Hunter. She put her hand on his forehead. "Hum-m-m," she said, "Gary, I want you to take this note up to the nurse."

Gary found it difficult to climb the stairs to the nurse's office. Usually he liked to see Nurse Heron because she teased him and petted him a little. But this time, after she read Miss Hunter's note, she put a thermometer in his mouth, unbuttoned his shirt and looked at his chest.

"Ever had measles, Gary?"

"I don't think so," he answered.

"Well, I think you have them now, Gary," she said. "But never mind, you'll be better in time for the concert."

Gary cried when his mother made him go to bed. "I wasn't chosen to be captain," he said.



For some days after that Gary was too sick to wonder who had been chosen. But when he began to feel better, he wondered about it.

"Please ask Miss Hunter if I have a chance," he begged his mother.

Miss Hunter was sorry, she said, but they'd had to choose someone

else. They couldn't wait any longer and so she'd had to put another boy in that place. But Gary mustn't feel too badly. There would be something for him to do, even if he couldn't be a soldier. Maybe he could think of something himself and practise at home until he was well enough to come back to school.



THAT AFTERNOON Gary and his mother looked over all the toys in the toy box. Maybe he could be a toy. There were cars and airplanes and ships in the box but none of those would do. They put the box away.

"I'll hunt up your old baby toys," his mother said.

Gary's Dad came home to find Gary and his mother looking through a box of very old toys. There were rattles and teething beads and more toy animals, even a rag doll. But Gary picked up an old roly-poly clown doll he had liked to watch when he was a baby. He pushed it over and watched until it stood up straight again. He did it again and again. All at once the three of them called out: "A roly-poly clown!"

"I can be a roly-poly clown," Gary laughed. He rocked from side to side with his feet in one place on the floor. At one time he leaned over so far it seemed he would fall, but he didn't. He came right back to a standing position. He even tried a handspring or two.

He practised again the next day. And his mother dyed half of an old sheet bright orange and the other half green for a clown costume. She also made a tall pointed clown hat.

Miss Hunter was delighted with Gary's act. "Stay on the stage during our whole act, Gary," she said, "and when no one else is acting, you can turn a somersault or handspring or just rock from side to side."

And that's what Gary did. He was in the center of the stage when the curtain went up. He rocked in such a funny way the whole audience laughed at him. While the toy soldiers performed, Gary stood stiffly in the background. But, as they marched off, Gary rocked from one side of the stage to the other.

At last the curtain went down. The concert was over but the clapping went on and on.

"We want roly-poly. We want the roly-poly clown," they shouted. "Gary," Miss Hunter said, "would you do a handspring, a somersault and rock just once." And that was Gary's big moment.

The Bird's Christmas

Find a little tree

And shake off all the snow,
Then run inside for bits of bread,
Then out again you go . . .

And tuck them here and there,
And when you've done, you'll see
How you can give the winter birds
A merry Christmas tree!

—LOU ANN WELTE

Puzzles for the Holidays by HELEN PETTIGREW and JEAN GILCHRIST

In the Kitchen

You can BAKE a CAKE in one move, by taking away one letter and adding a letter, leaving the others just as they are. You can SALT the MEAT in three moves — S A L T, M A L T, M E L T, M E A T. Can you COOK a MEAL in the same way in six moves?

C O O K

- — — — Something to read
- — — — Something to wear
- — — — Something to sail in
- — — — Thrash
- — — — Something to eat

M E A L

Answers
meal

Cook, book, boot, boat, beat, meat,

A Spelling Puzzle

My first is in CHECKERS, and also in CHESS;

My second's in TATTERS, but not in MESS.

My third is in NEIGHBOR, and also in FRIEND;

My fourth is in START, but not in END.

My fifth is in DOG, but not in CAT;

My sixth's not in THIS, but it is in THAT.

My whole is a country you've heard of, I'm sure;
Just study the clues, for we'll tell you no more.

Answer: Canada

Know Your Rivers?

Many Canadian towns and cities are built along river banks, because, in the early days of settlement, the rivers were highways. Can you put Calgary, Winnipeg, Whitehorse, Montreal, Toronto, London, Fredericton, and Edmonton on the right rivers?

- _____, as each child knows, Stands where the St. Lawrence flows.
- Where the St. John curves around, Lovely _____ is found.
- Here's one Westerners should know. _____ is on the Bow.
- This one may be hard to choose. _____ stands beside the Lewes.
- Stop, think and scratch your head. _____ is on the Red.
- Here's one we might catch you on. _____? North Saskatchewan.
- Where the Thames goes rolling down, As in England, it's _____ town.
- What river is _____ on? Both the Humber and the Don.

Answers

1. Montreal. 2. Fredericton. 3. Cal-

Mother Goose Fun

Can you find the answer to a question put to an animal in a Mother Goose rhyme? Begin with the letter Y and end with the letter L in the last row. Move one letter at a time in any direction.

Y	S	E	S	I
E	S	Y	S	R
I	R	E	H	T
B	E	S	R	L
A	G	F	U	L

Answer

L	U	F	G	A
L	R	S	E	B
J	H	E	R	I
R	S	Y	S	E
I	S	E	S	Y

(Continued from page 18)

MEASURE FOR MANAGEMENT

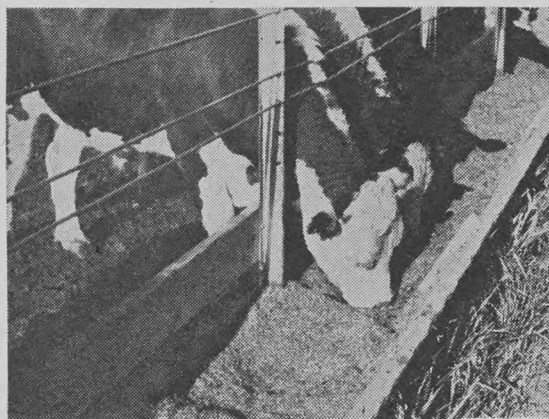
ing methods were described. The standard s would be used. The fields would be ed, disced, harrowed, seeded, and roto- These operations were considered necessary he field in proper shape for the corn crop. pointed out that if conditions had been t the time the budget was made up, one on might have been dropped or had conditions been worse additional operations ould have been included in the budget calcula- ns.

Once the field operations had been determined e next step was to calculate how many acres ch implement would have to cover, and, from e capacity of the tractors, the total tractor hours e calculated. The same process was used to rk out the harvest equipment requirements. y working this out in advance we know whether e have enough machinery to do the job," Roger inted out.

What about results? The yield of this particular n crop was 9.6 tons instead of the expected 15. ked Roger and his field crop supervisor, Dennis yden, what caused the shortage. They ex- ed that the crop had not been harvested el late and had been frozen. For this reason e moisture content was down and the total ton- age less. Why had the harvesting operation been ater than anticipated in the budget? "We wanted

to get more maturity on the crop," explained Roger. "However, I expect we lost feed value by letting it get frozen." Dennis offered another reason for the later harvest. "We were 10 to 14 days late with the seeding because of bad weather at seeding time," he explained.

Would the expected yield of corn silage be reduced in future budgets? "No," replied Roger. "We've decided we have the wrong variety for



The rate of gain and cost per lb. were all worked out before these steers went on feed; their performance is checked with the budget each month

what we want to do and we intend to change the variety so that we can plan to plant later in the season when we are more sure of good seeding weather, and still harvest the crop at the proper stage of maturity for high-energy corn silage."

Roger and Dennis are certain from their experience that budgeting is an important part of the farm management job. "The more people that are involved in the work, the more important it is to have everything written down," explained Roger. "This established the responsibilities for each person. I would think that partnerships and family operations would find this particularly valuable."

"We find it helps to have to submit our budget to someone else for checking," said Dennis. "Quite often the head office questions figures that we have accepted as absolutely final. If a farmer were budgeting on his own, it would be a good idea to have someone else go over his figures. This would be a good reason to belong to a farm business group. Partners could divide the budget responsibilities so that one prepared the livestock budget and the other the crop budget. Then they could check each other's calculations and estimates."

Roger and Dennis are as enthusiastic as Searle about using the budget as a measure of their management. Both are certain that they would use the system if they were farming on their own. "After all," says Roger, "\$900 is a pretty fair return for 3 hours spent figuring out a cheaper dairy ration."

News Highlights

(Continued from page 9)

world is on the edge of the biggest problem we have ever known — a world-wide food shortage. But, he said, some of our present agricultural policies are a hindrance to maximum production in Canada. "For example, surely present feed grain policies in Canada not only discourage livestock production in Western Canada but also deter maximum production of oats, barley and corn in Eastern Canada."

He said that we must ensure that what we grow or feed is produced in the most efficient manner possible so the farmer can have the advantage of good returns while the consumer, domestic or foreign, obtains food at a reasonable cost. There should be no reduction of income to the producer or increase of costs of food to the consumer because of wasteful and uneconomic internal policies.

It is essential, he went on, to overcome our lack of information and communication about actual problems. "Let us investigate now, policies such as feed freight assistance, feed grain agencies, acreage payments, high tariffs and labor laws as they affect the cost of a farmer's inputs."

He said we need national farm policies that do not hinder production in one area to provide production benefits in another.

ARDA ON TRIAL IN NOVA SCOTIA

Can ARDA really help people in depressed rural areas to build their farms into economic units or to get retraining and find useful employment off the farm or even to retire without suffering undue hardship? A project now under way under the

new ARDA Federal-Provincial Agreement will help to give the answer to these questions. It is a project that will be watched by people across Canada.

It is a \$3.3 million project to help low-income farmers. It aims at retraining, relocating, helping them to retire early or helping them get additional land and capital so they can farm profitably.

Under the program, farmers will be interviewed to see if they would like to take part in the program and to see if farms can be consolidated in the area. If land is purchased, the next step is to find ways to make use of it, as well as to help those farmers who sold to find a new way of life.

The land purchased may be sold to adjacent farmers or several units may be consolidated to be leased out to a new operator for a 5-year period. Additional capital might be loaned to such a farmer to purchase machinery and livestock and the land settlement board would help him to set up a management plan which might involve land drainage, and a soil management and fertility program. Rentals in the first 2 years will cover only insurance and tax costs. Interest will later be charged with the operator either continuing the lease or purchasing the property.

Another way to use the land might be to turn it to a land bank or devote it to forestry or community pasture.

Those who sell their land can be trained for new occupations. They can be given cost-of-living allowances during training and costs for transportation and relocation.

Farmers who sell their land but are not in a position to begin a new career may hold onto their farm home and enough land for a garden.

Thus they would be retired or semi-retired.

If this program is successful, it could be one of the most significant ever attempted in Canada.

LABOR HURTS FARMERS

With labor demanding wage increases of 10% or 20% per year as they are now doing, farmers must begin to look for some other way to settle disputes with labor without disruption to the economy. This is the view of Jim Bentley, president of the Canadian Federation of Agriculture. He said increases of the magnitude being demanded by labor are creating an inflationary force and farmers particularly are being hurt because they must sell 30% of their produce at world prices. One possible answer, said Mr. Bentley, might be a seven-man labor court such as is in existence in Sweden. It consists of two representatives from labor, two from management and three outsiders, two of whom must be judges.

50 AWARDS WORTH \$2,000 EACH FOR FARMERS

Fifty farmers, 25 in Eastern Canada and 25 in Western Canada, will be awarded \$2,000 each to carry out a project of their own choosing under the Bank of Montreal Centennial Farm Leadership Award Plan. The newly announced plan will enable farmers across the country who have already demonstrated some farm leadership ability, to carry out a centennial project of their own. For the 50 who win the awards, it could be the experience of a lifetime. For agriculture, the project could result in a giant step forward. Timing of the awards is ideal. Never were the opportunities greater for farmers or for agriculture, nor was the need for good leadership so great, bank officials say.

Any farmer across the country is eligible to apply.

Application forms which are avail-

able from branches of the Bank of Montreal must be submitted by January 28, 1966. Farmers who apply must fill in the application form and tell in their own words what it is they want to do with the \$2,000 award to meet the problems of rural development, or how they plan to equip themselves to make a useful contribution to the community today or 5 or 10 or even 20 years from now.

The Bank expects candidates to give their imaginations free rein. Their program might involve visits to fast developing farm areas, studies of rural communities that are taking particular advantage of the opportunities they find, or farm organization work, or university courses or studies of co-operatives or other rural programs.

RISE IN AUTO INSURANCE RATES

Prairie farmers can expect another increase of up to 10% in automobile insurance rates effective January 1966. It will be the third increase in 12 months and the reason is that insurance companies in Canada lost \$73 million in 1963 and \$55 million in 1964. Rising repair costs and higher accident frequency are responsible. Farmers owning only a 1/2-ton truck (as opposed to those owning a car and a 1/2-ton truck) may be charged private passenger car rates rather than farm truck rates.

The waste boughs trimmed from a 14-year-old plantation of red pines at Macdonald College's Morgan Arboretum in Quebec, and packaged in plastic netting and sold for \$1 per bundle along with Christmas trees, met with ready customer acceptance. In fact, they netted a profit of \$472 per acre.

Directors of the Ontario Whole Milk Producers' League have dissolved the League and transferred remaining funds to the Ontario Milk Marketing Board.

Letters

Too Many Men

Your August cover picture made me laugh. What were all four mature men doing in a grain field with one combine? So many farmers are in need of help at harvest time, one would wonder what all these men were doing out in the field on a nice day. As for the four extra cups placed on the car, I would say the lady would have her hands full getting meals and running out coffee for four men.

A.M.D.,
Friedenstal, Alta.

Smaller Pages

I like Country Guide very much but would prefer it if the page size was smaller so I could store it easily in a bookcase. There is a lot of information in it that I like to refer to from time to time.

ELIE OROSZ,
Prudhomme, Sask.

Poor Diagnosis

I have just read "A Battle Plan for Rural Poverty," in your September issue. A good physician examines the patient before applying a remedy. This, Dr. Menzies failed to do. He tries to blame rural poverty all on automation. It is only part of the trouble.

Instead of forcing qualified farmers off the land, and turning it over to large farmers, many who live in the U.S., why not make it possible for bona fide farmers who are true Canadians to be a success—even if the government has to confiscate good land held by large farmers whose only motive is profits. What large farmers own over and above what they need to exchange for their own use is excess baggage to a sound agricultural economy.

The late Herbert Hoover, when president, said most people fail to

realize their freedom ends when it affects others, but how many recognize this fact? We may well ask where anyone ever got the idea that democracy means personal freedom. We forfeited that right when we became members of organized society and became dependent on each other, both politically and economically.

The late President Kennedy, in his inaugural address, said let us not consider how much we can get out of our national economy, but how much we can contribute toward its success.

It takes an honest, tolerant people to live under democracy. I fear our people have a lot to learn about true co-operation and true democracy.

E. E. JAMES,
Portage la Prairie, Man.

What Feed Shortage?

Now I am befuddled. You publish the following statement in Guideposts.

"Eastern feed grain demand is not likely to be as heavy as previously expected. Ontario crops of oats, barley and mixed grains are all above last year while grain corn output again climbed to a new record."

The second part certainly bespeaks prosperity, not famine, and the Farmers Union should investigate more fully the eastern situation, don't you agree? After all, if they have grains to feed they should need little roughage.

I'm all for helping the needy but since we've been subsidizing eastern industry for nigh on to a century, methinks the time has arrived for some sympathetic action from Bay Street. The moguls there should organize a "match the western dollar" fund.

I propose this, because it is only fair since the protection they have enjoyed under the preferential tariff

laws has given them huge profits, they should now share those profits with their farmers.

Further, the same men who are concluding that Ontario is a disaster area should visit parts of northern Saskatchewan where hail, frost, drought and rust have caused havoc to the crops. They would most assuredly find some straw bales but little or no grain in the bins (a reversal of what we read about Ontario) on many farms. PFAA will not come near to making these hard hit farmers buoyant come next spring.

D. DERKSEN,
Spiritwood, Sask.

That Food Crisis

You talk about a food crisis in an article in your November issue. You should be a farmer! This year's wheat prices are \$1.66 but the Wheat Marketing Board takes 16 cents. That leaves us with \$1.50 per bushel if our yield is 50 bushels to the acre. Growing costs will use most of this revenue.

Look at corn. With all the new equipment the seed company has, it still costs as much to buy the seed as it did 25 years ago while our

prices are about the lowest in history. On November 14, dry corn was \$1.15 per bushel. Growing include plowing, discing, fertilizing, spraying, picking, trucking. You hope for a 150 bushels to the acre aren't likely to get it. Profits slender.

If some of you would like the farm is the place to do days. But when it comes to a living, you can sure get tired working for fun on the farm.

C.C.,
Dutton, O.

No Sheep

I want to congratulate you Country Guide as well as to "sot off." Your magazine is enjoyable informative but in your October issue, "Outlook 66" lacked coverage of the sheep industry. I'm sure not the only one disappointed sincerely hope you will rectify. Surely sheep raisers who read magazine would be interested such a prediction.

DON RISKY,
Lacombe, A.

We accept this reprimand humbly.
—Editor.



Hi Folks:

If you are wracking your brains to figure what you can grow or raise as a sideline enterprise, I suggest you go in for raising old barns. This is turning out to be the wonder crop of this decade. In fact, some businessmen are so anxious to get their hands on old weathered barns they are going around the country offering new barns for old—much the same way the wicked magician did in the Aladdin story, when he wanted to get his hooks on Aladdin's magic lamp.

This trade in old barns has been growing by leaps and bounds since I mentioned it some time ago. At least one Canadian firm has shipped siding from old barns as far south as Bermuda and Los Angeles. According to one paper, this firm has used over 20,000 linear feet of old beat-up barn siding in the past 3 years, and installed it in 2 dozen stores across Canada. If you happen to have an old barn that was built by some parent or grandparent who was too lazy or shiftless to apply a coat of paint—and you have kept this family tradition alive—you have it made.

I suggest you hold out for the highest bidder on this deal because

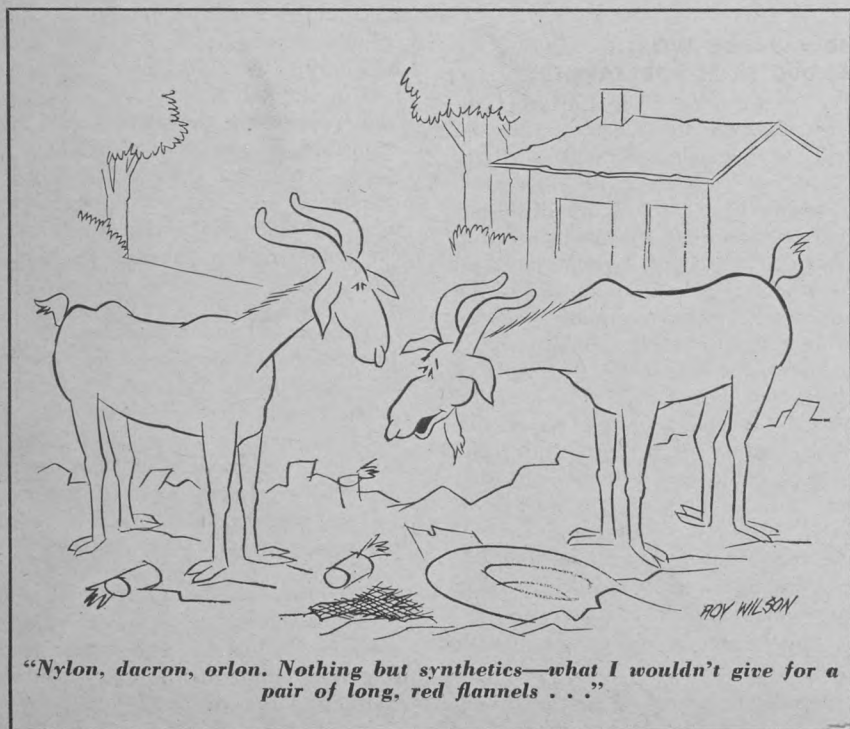
old weathered barns are getting to be in short supply. You might be able to get somebody who will pay you for the old siding and re-cover the frame with new boards. And make sure they use boards instead of plywood or metal siding. You have an obligation to pass this resource on to those who come after you, even if it might be 50 or 100 years before they can take off another "crop."

It's the weathering that makes these boards so valuable. Interior decorators say that it's impossible to fake that faded, silvery hue that pine boards take on after they have been exposed to our Canadian weather for a hundred years or so—which is quite a confession for these jokers to make because they can fake just about anything else.

This weathered siding is turning up in stores and bars all over the country to give a sort of "driftwood" effect in some cases, or act as a backdrop to some product somebody has to sell. The idea behind the latter is that a chic new object will stand out more if it has some rough, everyday object as a background, which is one reason so many dainty little women marry rough clods like you and me.

Sincerely,
PETE WILLIAMS.

COUNTRY GUID



"Nylon, dacron, orlon. Nothing but synthetics—what I wouldn't give for a pair of long, red flannels . . ."